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ABSTRACT

The students entering colleges in the 1970's represent a much broader spectrum of the population than has ever before pursued education beyond high school. Institutions of higher education are not prepared, however, to educate and meet the needs of these new students. This book seeks to shed light on the important question of what kind of student will be attending institutions of higher education in the decade ahead. Chapter 1 analyzes the changing philosophies as the nation attempted to address itself to the question: Who should go to college? Chapter 2 deals with the question of who is going to college now and Chapter 3 includes some predictions about who will go to college in the future. A research description of new students in higher education and an analysis of how their presence should change colleges and universities concludes the study. (Author/HS)

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New Students and New Needs in Higher Education

K. PATRICIA CROSS

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New Students and New Needs in Higher Education

By

K. PATRICIA CROSS

CENTER FOR RESEARCH AND DEVELOPMENT IN HIGHER EDUCATION
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Introduction

Who should go to college?
Who is going to college?
Who will go to college?

Planning for New Students to higher education in the decade of the 1970s requires an answer to the last question posed above: Who will go to college? Only when we fully understand the answer to that question can we design appropriate educational experiences for college students of the near future. But the complex answer to that question begins with a synthesis of the answers to the first two questions. The first question—Who should go to college?—is one to be answered by society; the second question—Who is going to college?—can be answered by research. When we can describe who is going to college and when we can reach some consensus on who should go to college, then we can determine who will go to college and we can begin to plan accordingly.

The obvious conclusion of the decade just past was that there were many young people who should have had the opportunity to go to college who were not continuing their education beyond high school. Specifically, there was widespread agreement—sufficient to pass massive federal legislation—that low socioeconomic status should cease to operate as a barrier to access to higher education. The Higher Education Act of 1965, with its financial assistance for

young people, took a position on the question of who should go to college, and its enactment provided a partial answer to the question of who will go to college. This is but one example of how answers to the questions of who should go to college and who is going to college lead to the determination of who will go to college.

This book seeks to shed some light on the important question of what kinds of students will be attending our institutions of higher education in the decade ahead. Chapter I analyzes the changing philosophies over the years as the nation has attempted to address itself to the question: Who should go to college? Chapter II speaks to the question: Who is going to college now? Chapter III makes some predictions about who will go to college, and the rest of the book is concerned with a research description of New Students to higher education and an analysis of how their presence should change colleges and universities.

The central thesis of this book is that there is a New Student to higher education. The students entering colleges in the 1970s represent a much broader spectrum of the population than has ever before pursued education beyond high school. Institutions of higher education are not prepared to educate these New Students. Traditional education has failed these young people in the past, and unless substantial changes are made it will fail them in the future. The programs of colleges and universities were designed in a different era to serve the quite different needs of a different kind of student. There is an old Chinese proverb that warns: "If we don't change our direction, we are likely to end up where we are headed." Surely we are headed toward universal access to postsecondary education, but if we do not change education itself, we are headed toward further disappointment and disillusionment for millions of New Students.

Initially this project was undertaken in the hope that a better understanding of New Students would help in creating improved educational programs at the *postsecondary* level. As the study progressed, however, it became clear that many of the learning problems of these students were directly attributable to school

experiences at the elementary and secondary levels. Therefore, the implications of the research findings have relevance for the restructuring of education at all levels.

THE DESIGN

From the beginning I have operated under the assumption that, over the past decade, researchers have collected more information about students than has been used. I therefore vowed not to collect new data from students. Rather, the study was built from a foundation consisting of data collected in four major research projects conducted during the years between 1960 and 1969. All four of the data banks represent large, nationally diverse, but not necessarily nationally representative, samples of students. Three utilize longitudinal designs following high school students into postsecondary education; one is a data bank of information collected from students entering two-year colleges. The studies were not designed to be comparable; the measuring instruments are not the same; the dependent variables differ from study to study. Yet, the groups designated "New Students" are remarkably similar across the four samples. Although the use of four major studies results in a surfeit of information, the consistency of patterns gives assurance that the findings are not artifacts of the particular data bank used. A summary description of each of the projects is presented in Appendix A. Briefly, the four data banks that form the central information system from which the research description of New Students is culled are as follows:

> Project TALENT, a national sample of 62,602 high school seniors tested in the spring of 1960, with follow-up studies in 1961 and 1965.
>
> The Growth Study, a diverse sample of 8,891 students tested as high school juniors in 1965, preceded by data collections in 1961 and 1963 when the students were seventh and ninth graders, and followed up in 1967 and 1968 when the students were high school seniors and one year beyond high school graduation.
>
> SCOPE (School to College: Opportunity for Postsecondary Education), four-state sample of 33,879 high school seniors tested in 1966, with a 1967 follow-up collection of data.
>
> Comparative Guidance and Placement Program (CGP), a sample of 23,719 entrants tested by 45 community colleges in 1969.

The analyses presented in Chapters II and III led me to the conclusion that the distinguishing characteristic of the group of young people who will be seeking postsecondary education in the decade of the 1970s is their low level of academic achievement on traditional measures in traditional curricula. Therefore, for each of the four data sources, New Students were defined as those scoring in the lowest third of the sample on a conventional test of academic achievement, whereas traditional students were those scoring in the upper third. New Students are referred to during the presentation of research data as lowest third, or low-A students where the A stands for *a*cademic *a*ptitude, *a*bility, or *a*chievement. Appendix B describes key characteristics of the young people designated low-A or New Students in each of the four basic data sources.

A NOTE ON UNCONVENTIONAL RESEARCH REPORTING

The approach taken in this book does not conform to some commonly accepted rules of scientific reporting and writing. The book is not written primarily for scientists. It is a report of research written for graduate students, for teachers in high schools, community colleges, and four-year institutions, and for administrators, legislators, and anyone else interested in improving the practice of education. My goal has been to present and interpret research data in a manner that is interesting to read, easy to understand, and practical to apply. While I may have fallen short of that ideal, it may help the reader if I make explicit some of the choices that I have made in reaching toward my goal of communicating with an intended audience that I perceive as educationally sophisticated but not necessarily trained in research methods and terminology.

Precision of the language of research has sometimes been slighted in favor of readability. For example, the reader may see phrases such as "bright but poor students" in place of the more

precise "students scoring in the top quarter of the sample on a traditional test of academic ability but in the lowest quarter on an index of socioeconomic status." Mindful, however, of the fact that this book is also addressed to people—graduate students and researchers and others—who need to know precisely how the groups were defined, I have not used the briefer phrases where I felt that there could be any doubt about the actual meaning.

Readability, on the other hand, has sometimes been sacrificed in favor of reporting additional data or sources after the point has been made. I can only suggest that the reader skip the burden of additional evidence unless he is one of those seeking to extend knowledge through a deeper probing of the available research on the topic. For such students of education, I have attempted to make reference to other studies in the literature and to present additional data from the original sources directly available for this study.

Powerful and complex statistical methods have been sacrificed in favor of those that could be understood easily by educators without research training. There is no statistical treatment used that is more complicated than a simple percentage. The reader may assume that anything treated as educationally significant has been checked to be sure that it is statistically significant. In the huge samples used in these analyses, however, even a difference of one or two percent is likely to be statistically significant, and the criterion of educational significance is more rigorous than that of statistical significance. Upon occasion my commitment to simple percentages has resulted in the creation of data displays that have required more complex verbal explanation than would be necessary in the shorthand of more sophisticated statistical analysis. This approach may suit neither researcher nor practitioner, but it seems important to take the reader through the analyses as well as the conclusions. Another reason for using percentages, however, is that until learning experiences can be truly individualized, education must concern itself with *groups* of people who have common learning needs. Percentages have the advantage of providing an immediate picture of the size of the group sharing a common characteristic.

Although I am confident that any interpretation of the data is responsible to the best of my ability to judge, if I have erred it is on the side of making interpretations freely rather than cautiously. It is my conviction that we may make better progress by acting upon the basis of what the data suggest rather than waiting for proof. Precious little of what we do now has ever been "proved," and perhaps nothing will be lost by acting upon some suggested assumptions.

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My indebtedness to many people is very great. This book would not have been written were it not for the cooperation of three generous sponsors: the Center for Research and Development in Higher Education of the University of California at Berkeley, The College Entrance Examination Board, and Educational Testing Service. Leland L. Medsker, Director of the Center for Research and Development in Higher Education, and Robert J. Solomon, Executive Vice President of Educational Testing Service, are two valued friends and colleagues whose interest and support have been unwavering throughout the year and a half that was required for collecting and organizing the data and committing my learning to writing.

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Dale Tillery, of the Center for Research and Development in Higher Education, has been the chief architect and the director of the SCOPE project throughout the six years of its life under the sponsorship of the College Entrance Examination Board. He and Denis Donovan have been very generous with their data, their time, and their talent. Charles Gehrke, director of data processing for the

Center, has provided the expertise that turned raw data into information about New Students. Thomas Hilton, senior research psychologist of Educational Testing Service, is the director of the longitudinal Growth Study that has kept track of cohorts of young people from the time they entered seventh grade to their entrance into college, the army, or other experiences of adult life. He and his staff have been most cooperative in making these data freely available to me. The empirical analyses of the effects of failure presented in Chapter IV would not have been possible without the careful collection of data on cognitive development over a five-year period by the staff of the Growth Study.

John Claudy, director of the Project TALENT data bank, handled the complex subgroup analyses of the Project TALENT data. Probably the most ambitious longitudinal study of young people ever undertaken, Project TALENT served as the pioneering model for longitudinal studies of the education of young people, and it remains a vast source of knowledge about the developmental processes of growing up.

The youngest data bank to contribute to the research description of New Students is the Cooperative Guidance and Placement Program (CGP). Sponsored by the College Entrance Examination Board and implemented by Educational Testing Service, CGP is the New Students' data bank. More than any other source, CGP is directed toward measuring the special abilities and interests of New Students to higher education. My appreciation is extended to the present director of CGP, Elizabeth Stewart, and to her predecessor, Alice Irby, both of Educational Testing Service, for their attention to my requests during the hectic days when they were coping with the excitement and frustration of launching the new program.

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K. Patricia Cross
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1

Who should go to college?

Changing philosophies

In the history of higher education in this country there have been three major philosophies about who should go to college. At the turn of the century, the majority of college students came from the homes of wealthy aristocracy. Students who attended colleges had money and family social status. Some also had academic interests and abilities; others did not. Basic to the aristocratic philosophy of college admissions was the premise that the young people who should go to college were those who could afford it and who needed it to carry out their station in life. The poor, ethnic minorities, and women, it was assumed, would not follow life patterns that really made use of a college education. (Albeit, in the case of women, there were a number of "finishing colleges" that had as their purpose the training of young ladies to take their place in the aristocracy.)

The colleges that were developed to serve the aristocratic philosophy were private high-tuition colleges. Whether a boy would go to college was predictable from birth. Indeed, the acknowledgment of legacies as appropriate admissions criteria frequently foretold which college the young man would enter. He might be a Harvard man or a Yale man, but the family had their college loyalties and the colleges reciprocated. It was a closed system, and some were in and others were out.

Hindsight analyses tend to make historical trends seem more calculated than they really were. Colleges of the aristocracy probably did not give much thought to erecting barriers that would keep people out of college. It simply did not occur to anyone that a young man should attend college if he did not have the money to do so. The thesis is easier to understand when viewed through the meritocratic perspective of our times.

To many, if not most, people today it is unthinkable that a student should attend college if he does not have the ability to benefit from the instruction offered. Only in recent years have we started to question whether the instruction offered might change so that it would benefit a new segment of the population who wished to attend college. In an earlier day, those who challenged the assumptions of the aristocracy asked the same question: Why couldn't *colleges* change so that a broader segment of the population could attend? In the long run, of course, the colleges did change. But it was not the old colleges that had been developed to meet the needs of the aristocracy that changed first. The challenge came, not by breaking down the gates to the aristocratic colleges, but by opening new gates through which a new generation of college students poured so rapidly that the high-tuition colleges no longer determined who would be college educated.

The champions of the new land-grant universities that heralded the rise of the meritocracy questioned the traditional role of tuition, and they had some unconventional ideas about the nature of the curricula that would serve the needs of a new clientele. The working man, they claimed, should be able to send his children to college. And the young people should be able to prepare themselves for professional careers through the pursuit of courses of studies much broader than those offered by the aristocratic colleges of the time.

The revolt against aristocratic philosophies of college admissions was led by those who maintained that a college education was an earned right, not a birthright. Advocates of the meritocracy felt that criteria for college admission should be based upon

scholastic ability and the willingness to study hard—i.e., upon academic merit. In practice, meritocratic principles were applied by using rather narrow criteria of grades and test scores to define merit and to select the "most promising" young people to attend college. Philosophically, the meritocracy reached its peak in the 1950s. In 1954, the Commission on Human Resources and Advanced Training published the well-known study, *America's Resources of Specialized Talent* (Wolfle). The pervading philosophy of that time is typified by their assertion that:

> The democratic ideal is one of equal opportunity; within that ideal it is both individually advantageous and socially desirable for each person to make the best possible use of his talents. But equal opportunity does not mean equal accomplishments or identical use. Some men have greater ability than others and can accomplish things which are beyond the powers of men of lesser endowment. . . . The nation needs to make effective use of its intellectual resources. To do so means to use well its brightest people whether they come from farm or city, from the slum section or the country club area, regardless of color or religious or economic differences *but not regardless of ability* [p.6, italics added].

Much as the aristocratic colleges had assumed that what they had to offer was static and designed for an elite portion of the population, so the colleges of the meritocracy assumed that there was a certain fairly small portion of the population that had the ability to benefit from what they offered. Considerable attention was given in the late 1940s and early 1950s to the determination of the size of this group. The President's Advisory Commission on Higher Education of 1947 estimated that 49 percent of the population could profit from at least two years of post-high school education and that at least 32 percent had the capacity for a normal four-year college course. After considering this figure in conjunction with the observation that "most experts estimate that about 25 percent of the population can do college work profitably," Hollinshead's report for the Commission on Financing Higher Education (1952) concluded that "perhaps 35 percent of youth might be expected to profit substantially from formal full-time post-high school education of the kind given at present by such

institutions [p.138]." The job of these investigators was to find an answer to the rather tricky question of who could profit from a college education. A cynic might take issue with their assumption that those who knew the most already were the most likely to profit from further instruction. But the point was that the answers of the study commissions made it clear that the proportion of the population that could use further education to the betterment of themselves and society was much larger than had previously been assumed. It has taken less than two decades to surpass what appeared to them to be very liberal estimates of the numbers of persons who should be and would be attending college.

The rise of the meritocracy was regarded by almost everyone as a move that, in the best traditions of the country, led to the democratization of higher education. There is no little irony in the fact that while the advocates of the meritocracy were zealously breaking down the barriers imposed by the aristocracy they were systematically erecting their own barriers. And academic aptitude tests served both to destroy the old barriers and to erect new barriers to college admission. The talent searches of the 1950s were active campaigns to bring into the colleges those who did not meet aristocratic criteria but who were the epitome of meritocratic ideals. The very good student who was the son of the immigrant cobbler was the hero of the meritocracy—no money, no family social status, but lots of academic talent and a willingness to work hard.

Now once again we find ourselves in a period of philosophical transition regarding the question of who should go to college. Once again there is pressure to democratize higher education by bringing it within the reach of a broader segment of the population. Once again there are demands for new answers to the old question of what proportion of the population the colleges should serve. The egalitarian challenge to the meritocracy looks strikingly familiar. The nature of the questions raised as well as the patterns of instituting change are not unlike those of a century ago. A new sector of the public is being represented by New Students in colleges and universities. This group of New Students to higher education are repeating history by entering the system not so much

by breaking down the barriers erected by the meritocracy—although there is some of that—but by flocking to a new kind of college dedicated to serving a different clientele.

It appears that in 1970 the prevailing attitude in the country is still largely meritocratic, but there are signs everywhere of a straining at the barriers. The mingling of meritocratic and egalitarian philosophies is the occasion of considerable controversy among educators as well as in the popular press. The sign of the times is illustrated by a headline (TIME, 1970) reading: "Open Admissions: American Dream or Disaster?" At the same time that the formerly selective, tuition-free City University of New York was instituting egalitarianism by throwing open its doors to all 1970 New York City high school graduates, regardless of academic qualifications, the 1970 President's Task Force on Higher Education was embracing meritocracy and attempting to clear away the last vestiges of the aristocratic era by recommending financial aid to "students of all races who have the desire and *ability to profit* from post-high school education [italics added]." John Gardner has asked: Can we be equal and excellent too? Can egalitarianism and meritocracy coexist? What happens to the value of the college degree when everyone has one? Is there some fixed concept that represents "college" that will permit us to say who should attend? Should higher education serve those who can profit from traditional offerings, or is there an obligation to change the offerings to meet the needs of those who wish to attend college? The questions are complex, and although parallels can be drawn between our times and those of an earlier era, there are some profound differences, too.

The economic state of the nation was enormously different at the height of the meritocratic era from what it is today at the beginning of the egalitarian era. Those who were in positions of leadership in the 1940s were raised under the shadow of the Great Depression. The culture was built upon the assumption of scarcity. The experience of most adults told them that there was not enough for everyone and that competition for limited resources was a fact of life. Few people questioned the premise that the nation

could not provide college education for everyone; young people and their families, it was assumed, must compete for the privilege of attending college. In competition the strongest survive, and if education is considered competitive then it is easy to understand the origins of meritocratic education.

The economic state of the nation in the 1970s is far different. The young people pressing for reform today are the children of an affluent culture that rests on the assumption that there are plenty of resources to satisfy the important needs of all and that competition is unnecessary. (For a well-written, insightful analysis of these issues, see Slater, 1970.) From this perspective, the question of who can profit from college education becomes unimportant, and questions of how everyone can profit become the dominant concern. Past philosophies of college admissions have been concerned with establishing criteria for who should go to college. By implication this meant that some acceptable means needed to be derived for excluding unqualified people. On the eve of the egalitarian phase of college admissions, we find ourselves concerned about how to get young people into college rather than about how to keep them out.

As a matter of fact, in the decade just past, we have given considerably more attention to the procedures of getting New Students into college than we have to the educational questions of what to do with them once there. When colleges maintain the right to select who shall study with them, an educational match can be made by choosing students who fit the college. When colleges forego the right to select, the match has to be made by designing educational programs to fit the students. To date, we have concentrated on making New Students over into the image of traditional students so that they may be served by traditional education. Our concern has been the creation of access models to education. (For a discussion of some alternatives, see Cross, 1971.) We have devised all kinds of ways to make New Students eligible to participate in *traditional* higher education. Remedial courses are designed to remove academic "deficiencies"; counseling removes motivational "deficiencies"; financial aid removes financial "deficiencies."

If the answer to the question—Who should go to college?—is to be an egalitarian response of "Everyone," then the task ahead will involve the recognition that educational systems will have to be designed to fit the learning needs of New Students. It may be time to turn our attention from a primary concern with modifying students so that they are able to participate in our traditional concept of "college" to a concern with modifying "college" so that it meets the needs of New Students. It is, of course, not an either-or proposition. The gap between New Students and traditional higher education is large, and it can be narrowed by moving students and education toward each other. That is the subject of this book.

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2

Who is going to college?

Some barriers to attendance

Who are the young people who are entering college today? Or perhaps more importantly, who are the young people who are not entering college? Unlike the philosophical question dealt with in the last chapter, the question posed in this chapter has an answer. We don't know the full dimensions of that answer, but it is one of the questions in education that could be answered rather accurately, given enough money, enough research talent, enough cooperation, and enough patience and persistence. As practical matters, these ingredients are not easily obtained, and the number of longitudinal research studies that follow young people as they graduate from high school and enter college (or do not enter college) is not large. Research findings vary somewhat with the nature of the sample and the date of the study. Nevertheless the major results are sufficiently consistent to give us considerable confidence in what we know about the effects of socioeconomic status and academic aptitude upon educational attainment.

Most laymen recognize that bright high school graduates are more likely to continue their education than those who have had to struggle for grades throughout high school, that doctors' sons are more likely than laborers' sons to attend college, that whites are more likely than blacks and men are more likely than women to seek further education. These elements of the folk wisdom about who goes to college are by no means independent. Young people

are more likely to suffer multiple disadvantages or to enjoy multiple privileges than they are to exhibit a balance of advantages and disadvantages. For example, it is highly probable that a young person belonging to an ethnic minority will also rank low in socioeconomic status (SES) and academic ability. It is also highly probable that the son of a wealthy executive will belong to the ethnic majority and will score high on a test of academic aptitude.

Of the dimensions that researchers have been able to measure, SES and academic ability hold primary roles in explaining who goes to college, where they go, and even how long they stay. Socioeconomic status, which includes measures of family occupation and parental education, and academic ability are the two most powerful measures we have of who goes where to college. Table 1 is a simple display of data from the Project TALENT sample of high school seniors. It shows the tendency for SES and academic aptitude to be related.

TABLE 1

HIGH SCHOOL SENIORS CLASSIFIED BY ACADEMIC ABILITY AND SOCIOECONOMIC STATUS

SES	*Academic Ability*		
	Low	*High*	*Total*
Low	4491	939	5430
High	1336	4977	6313
Total	5827	5916	11,743

Source: Project TALENT.

For the 11,743 high school seniors classified by ability and SES, it is common for young people low in SES also to score low on tests of academic ability; 4,491 or 83 percent of the low-SES group scored low on the Project TALENT test of academic aptitude. Likewise, most high-SES youth receive high test scores; 4,977 or 79 percent of the students of high SES scored high on the test compared to 1,336 who scored low. The imbalance of the figures in the four cells does not indicate that the low test scores of low-SES youth are *caused* by their low SES, that tests are biased against those of low SES, nor that low SES is a result of low family intelligence. The only thing the data show is that SES and ability test scores are closely related.

At the present time, there seems to be general agreement that, within limits, environmental influences affect intellectual achievement. Failure to learn the simple skills involved in reading or writing or adding, for example, is likely to be the result of poor environment rather than inadequate capacity, whereas creative genius in mathematics may be restricted to those at a high range of intellectual functioning that is genetically determined. Acceptance of this view implies that every high school graduate should attain *competence* in the basic academic skills needed for functioning in an advanced society; only a small minority may be expected to achieve *excellence* in the academic disciplines.

The appropriate goal for education is to try to create the conditions that help each child operate as near to the top of his or her range of ability as possible, and we are far from that reality. The differences between what *is* and what *ought to be* are especially apparent in schools where we have not worked very hard at providing good education—i.e., in poverty areas.

ACADEMIC APTITUDE, SOCIOECONOMIC STATUS, AND COLLEGE ATTENDANCE

Some of the most important data extant on the interrelationships between SES and ability in college attendance rates were presented by Sewell and Shah (1967) for a sample of 1957 Wisconsin high school graduates and by Schoenfeldt (1968) for Project TALENT high school graduates of 1961. Recently, Dr. Thomas Hilton analyzed ETS Growth Study data for 1967 high school graduates using the same scheme of tabulation. Although the samples are different, the patterns within and between the three sets of data provide a rich resource for understanding three major barriers to higher education—low socioeconomic level, low tested academic aptitude, and female sex. A fourth major barrier, minority ethnic status, is not amenable to study in these data, but it is examined elsewhere (Cross, 1971).

TABLE 2

PROBABILITY OF HIGH SCHOOL GRADUATES IN 1957, 1961, AND 1967 ATTENDING TWO- OR FOUR-YEAR COLLEGES

Ability Quarter	*Socioeconomic Quarter*											
	1 - Low			*2*			*3*			*4 - High*		
	1957	1961	1967	1957	1961	1967	1957	1961	1967	1957	1961	1967
Male												
1 - Low	6	9	33	12	14	30	18	16	29	39	34	57
2	17	16	43	27	25	39	34	36	55	61	45	61
3	28	32	60	43	38	69	51	48	68	73	72	79
4 - High	52	58	75	59	74	80	72	79	89	91	90	92
Female												
1 - Low	4	8	25	9	12	28	16	13	36	33	26	37
2	6	13	28	20	12	36	26	21	50	44	37	67
3	9	25	44	24	30	48	31	40	68	67	65	77
4 - High	28	34	60	37	51	73	48	71	83	76	85	93

Sources: 1957 graduates, with 1964 follow-up, Sewell & Shah, 1967.
1961 graduates, with 1962 follow-up, Schoenfeldt, 1968.
1967 graduates, with 1968 follow-up, ETS Growth Study data analysis by Thomas Hilton.

Table 2 shows the three sets of data side by side. Although this display complicates the picture for those who don't thrive on tables of data, it has the advantage of warning against overdependence upon specific figures, and more importantly, it gives a certain reassurance that the patterns are not artifacts of a particular sample. The three sets of data were not designed to be comparable (see Appendix A for descriptions of Project TALENT and ETS Growth Study samples and Sewell and Shah [1967] for a description of the Wisconsin High School Graduate Study), but we can be rather certain of some things. For example, the probability is extremely high that the son of a surgeon who has been an A student in high school will go to college. For males ranking in the top quartile on *both* SES and ability there is little fluctuation

between the three sets of data. From 90 to 92 percent of the young men from this group have entered college, and there has been little change over the past 15 years—i.e., the saturation point has been reached. The eight to ten percent of this highly privileged group who don't attend college may be prevented from doing so by illness or other unusual circumstances.

For top quartile girls in both SES and ability, it is the pattern of *growth* that is remarkable. In the 1957 Wisconsin data, only three-fourths of this group were entering two- or four-year colleges; the 1960 Project TALENT sample showed 85 percent, and the 1967 ETS data reported 93 percent of these academically able women entering college immediately after high school graduation. While the differences in sampling procedures prevent any precise statement on the rate of growth for high-SES high-ability women, we can be quite confident that the percentage of women in this group attending college in 1968 had reached near saturation, and that this was not the case for women ten years earlier. In 1970 the fact is that very few additional college students, men or women, are to be expected from among high school graduates high in both academic aptitude and socioeconomic status.

At the other extreme are the doubly disadvantaged—those scoring in the lowest quarter on both SES and ability. In each of the three studies the lowest probability for college attendance occurs in the cells in the upper left hand corner of the tables for men and women. For example, in the 1961 TALENT sample, only nine out of 100 lowest-quarter SES males who also scored in the bottom fourth of the class on a test of academic ability entered college in the fall following high school graduation. If we had known nothing about a boy except that he made lowest-quarter test scores and came from a home where the father had little education and worked at a menial job, we could have predicted with a high degree of accuracy that, at the beginning of the 1960s, he would *not* go to college. We would have been correct nine times out of ten. The same odds could have been given in betting that a boy who made test scores in the top quarter of the class and came from a home of high occupational and educational status *would* go to college.

The family socioeconomic status and the student's test performance tell a great deal about his chances for entering college—especially at the extremes. But we know some other things with some degree of confidence about a high-SES, high-ability male. Chances are good that there would be a variety of books and magazines around his home, that the parents would speak standard English and would express thought in complex ways, that the family would travel and talk about what they saw, that parents would know about school and school work and college, that the boy would have a room of his own where he was encouraged to study, that he would have physical checkups, get his teeth fixed, and wear glasses if he needed them. The list, based upon research facts, could be expanded. His environment surely pushes toward college entrance, and high test scores indicate past success and portend future success in school.

The environment of the low-SES, low-ability boy is quite a contrast. There might be a newspaper in the home but probably not books and magazines. The English spoken at home might be quite different from that expected in school. It is highly unlikely that there would be any quiet place to study. Conversations would be restricted by limited variety in parental experiences and by low-level verbal expression. Parents and friends would know little about school work and nothing about college. The interesting question might be how the one in ten who entered college managed to do so. In summary, Table 2 condenses a great deal of information into two potent research indices that make the probability of college attendance reasonably predictable.

Forecasts made for individuals in the *middle* cells in Table 2 are considerably less accurate than for the groups just discussed. For example, we know that 60 percent of the boys in the lowest-SES quarter of the 1967 Growth Study sample who scored in the third ability quarter on the test entered college in 1968. If, armed with test score and SES index, we guessed that any individual student in that group would enter college, we would be right six times out of ten—or barely better than chance. And a little thought tells why this is so. The boy in this cell is poor, as poor as the deprived boy described above, but somehow he has managed to score in the

top half of the class on a test of academic ability. Is he a very bright boy who despite a deprived home environment has managed to get everything the school had to offer? Are his parents poor but unusually concerned that he have a quiet place to study and that he do well in school? Does he have an older brother who helps with school work and encourages academic interests? Are his parents willing to make heavy financial sacrifices so that he may attend college? It's not easy to predict the situation for individuals in the middle cells of Table 2. What we can say with considerable confidence is that low-SES boys will be much more likely to enter college if they have done well in school in the past (or more accurately, scored high on a test related to school performance). In the 1967 sample, for example, 75 percent of the boys in the *lowest* SES quarter entered college if they scored in the highest quarter in ability. That figure, incidentally, is testimony to the existence of the meritocracy. Male students of high "merit" are likely to get to college today regardless of socioeconomic background. But the operation of the aristocracy is also evident; if the boy with high "merit" had come from a high socioeconomic background, his chances would have been nearer 92 percent.

The number of students continuing their education in postsecondary institutions of some kind is larger, of course, than the number entering two- or four-year colleges—especially for lower-ability high school graduates. Table 3 presents the statistics for 1961 and 1967 high school graduates who continued their education beyond high school in two- or four-year colleges or in trade, armed forces, or technical schools.

Both ability and SES affect the probability of postsecondary education for young people. Across the rows of the 1967 data in Table 3, within similar ranges of ability, continuation of formal schooling generally increases with increasing socioeconomic level. Down the columns of constant SES, college attendance increases with each rise in ability. For males, however, academic ability has a stronger relationship to the continuation of education than has socioeconomic status. A male with top-quartile ability is very likely to continue his education regardless of SES. A poor student, on

TABLE 3

PROBABILITY OF HIGH SCHOOL GRADUATES IN 1961 AND 1967 ENTERING SOME FORM OF POSTSECONDARY EDUCATION

Ability Quarter	*Socioeconomic Quarter*							
	1 - Low		*2*		*3*		*4 - High*	
	1961	1967	1961	1967	1961	1967	1961	1967
Male								
1 - Low	21	48	28	55	30	40	51	65
2	37	57	47	58	51	69	61	79
3	47	74	52	77	66	79	82	88
4 - High	69	82	83	89	87	93	93	94
Female								
1 - Low	14	39	25	41	26	55	39	60
2	26	40	27	44	41	64	57	76
3	38	52	51	58	54	77	76	86
4 - High	58	69	66	77	84	88	91	95

Sources: 1961 graduates, with 1962 follow-up, Schoenfeldt, 1968.
1967 graduates, with 1968 follow-up, ETS Growth Study data analysis by Thomas Hilton.

the other hand, can compensate for his academic disability only partially by coming from a well-to-do family. A large percentage of boys from high-status homes do not enter college if they rank in the lowest quartile in academic ability. In the data for males the effects of the meritocratic phase of college attendance are apparent. At least three-fourths of the boys who rank in the upper half on ability measures (the eight cells in the lower two rows of male data in Table 3) continued their education in 1967 regardless of family status. The aristocratic influence is waning. High socioeconomic status doesn't compensate for low academic aptitude for men as much as the other way around.

The data for women, however, still show evidence of aristocratic practices. Women are more dependent than males upon family background for postsecondary educational opportunities.

High ability is not as likely to compensate for low SES for girls as it is for boys. Sewell and Shah (1967) also observed the special importance of socioeconomic background for women in their study of Wisconsin youth. They concluded that:

> Both socioeconomic status and intelligence have direct effects on planning on college, college attendance, and college graduation, and considerable indirect effect on the level of educational attainment through their effects on college plans and college attendance. However, for females the relative effect of socioeconomic status on college plans, college attendance, and college graduation was greater than was the effect of intelligence, while for males the relative effect of intelligence at each of these stages was greater than the effect of socioeconomic status [p.1].

In Chapter I we observed that major efforts had been directed toward removing economic factors as determinants of who should go to college. Despite the slightly lower level of success in the case of women than of men, the massive infusion of federal financial aid has made a big difference in who goes to college.

Froomkin (1970) set the year 1960 as the turning point in college attendance for low-income youth. In an analysis based upon family income, he observed:

> While college attendance increased proportionately for all income groups between 1940 and 1960, propensities to attend college have changed dramatically between '60 and '69.

This is what has happened so far:

> Between 1939 and 1959, young people from all income groups increased their aspirations to attend college at a uniform rate.
>
> Between 1960 and 1966, a new trend started manifesting itself. The aspirations of the poor to a college degree began to catch up with those of the rich. Twice as high a proportion of high school seniors from the lowest income quartile hoped to attend college in 1966 as did in 1959. The increase was from 23 percent to 46 percent. The proportion of high school seniors from families in the

> second income quartile—families whose income is below the median—who expected to enroll in college rose from 40 percent in 1959 to 52 percent in 1966. This was an increase [at the rate] of 30 percent. The desire to attend college grew more modestly in the upper two income quartiles, from 52 percent to 65 percent of seniors in the third quartile, and from 68 percent to 74 percent of those in the highest quartile in 1966 [p.2].

The large increases in college attendance for women are now coming from the ranks of above-average students from all socioeconomic levels as women continue toward the peak of the meritocratic era in college attendance. For men, the meritocratic phase has passed its peak, and in the decade of the 1970s the major increases in college attendance will come from lower-ability men as the egalitarian phase is entered.

The Growth Study data peg the proportion of high school graduates continuing in some form of postsecondary education at about 70 percent, with 61 percent entering two- or four-year colleges. The Growth Study sample was selected to represent the *range* of U.S. school systems, but over half of the subjects resided in large cities where educational opportunities are more easily accessible than in less-populated areas. Thus, while it is possible that Growth Study data overrepresent national college-going rates, some of the most recent data, published and unpublished, indicate that these data may reflect the extremely rapid approach of universal postsecondary education rather accurately, especially in the most populous states which tend to lead the country into new eras. A well-designed study of New York State high school seniors showed 67 percent planning in June 1968 to continue postsecondary education the following fall, with 59 percent planning to enter two- or four-year colleges (University of the State of New York, 1969). In California, with its extensive development of public higher education, 80 percent of the high school graduates are reported entering college (Hitch, 1970). But when figures are examined by geographical region there is great variation, attributable in part to the higher education facilities available in the region. Willingham (1970) reported the ratio of degree-credit college freshmen to high school graduates in 1968 as ranging from .52 in the South to .69 in the West.

As we move into the egalitarian phase of college admissions, the remnants of the earlier aristocratic and meritocratic phases can be observed. Both SES and academic aptitude have powerful influences on who goes to college. The effect is especially potent when they occur in combination. Young people, men and women, in the upper half in both ability and SES have a high probability of continuing their formal education—at least three-fourths are doing so. Young people in the lower half on *both* ability and SES are not as likely to continue their education, but for boys, over half are embarking upon some form of postsecondary education; for lower-half women about four out of ten high school graduates are pursuing further education.

The egalitarian era is rapidly approaching; most young people are already pursuing postsecondary education. Although the major concern of educators at the present time is with *access* to higher education, these data, as well as those to be presented in later chapters, indicate that for men, at least, low academic ability is keeping more students from continuing their education than is the barrier of lack of financial resources. Continued emphasis on access programs in the 1970s will bring increasing numbers of low-ability students into programs of postsecondary education. Traditional college programs are not prepared to handle the learning needs of these New Students to higher education.

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3

Who will go to college?

New students to higher education

A fundamental premise of this book is that the nation is at a juncture in history in which aristocratic, meritocratic, and egalitarian philosophies of postsecondary educational opportunities are overlapping. The decade 1965-1975 is likely to be highly significant in the annals of education because it provides the perspective from which we can identify the aristocracy as outgoing, the meritocracy as prevailing, and egalitarianism as the mood of the future.

National legislation expresses the public disavowal of the aristocracy in educational opportunity. Froomkin (1970) credits the Higher Education Act of 1965, with its massive infusion of financial aid to some 900,000 students, with great effectiveness in increasing college attendance rates for low-income students. The Veterans Administration and numerous federal programs for minority students have also hastened the demise of aristocratic criteria for college attendance.

National statements of policy formulated in the 1960s support the prevailing meritocratic criteria for determining who shall have the opportunity for postsecondary education by phrases such as "identify *qualified* youth of financial or cultural need with an *exceptional potential* for postsecondary educational training and encourage them to complete secondary school and undertake

postsecondary educational training [Public Law 90-575, October 16, 1968, emphases added]." But federal programs have also launched the beginning of an egalitarian era with programs for the disadvantaged which "are designed to generate skills and motivation necessary for success in education beyond high school" through the provision of special or remedial services for students "of deprived educational, cultural, or economic background or physical handicaps, [who] are in need of such services to assist them to initiate, continue, or resume their postsecondary education [Public Law 90-575]."

The data on college enrollments also verify the predominance of the meritocratic philosophy while showing trends toward egalitarianism. Many of these students of "merit"—e.g., top-academic-quartile high school graduates—now have a very high probability of attaining postsecondary education, be they rich or poor, black or white, male or female. But the strongest testimony to the emergence of egalitarianism is illustrated by the fact that the *increases* in the rate of postsecondary attendance are coming from those ranking in the lower half of the high school graduating classes academically.

Admissions practices at the institutional level convey the same message. Most four-year colleges have academic requirements in support of the meritocracy, but the open-door community colleges comprise the most rapidly growing segment of higher education. Prestige four-year colleges and universities maintain meritocratic qualifications for the majority of students, but there is an increasing tendency to waive the requirements in an acceptance of egalitarianism in education. These present conditions and future trends indicate very different concerns for the 1960s and 1970s.

The emphasis of the 1960s was on *access*. The goal was to move young people toward traditional postsecondary education through supplying money, incentive, and remediation of past educational deficiencies so that New Students would have the same educational opportunities as traditional students. Partly because of the success of this effort in the 1960s, the task of the 1970s will be *accommodation* of education to the needs of students who gained

admission through access programs. The emphasis will change from moving students toward higher education to moving education toward students. The 1970s has brought the realization that success at academic tasks in the past is not an infallible predictor of success in the future, especially when past opportunities for learning have not been equal for groups of differing locales, ethnic backgrounds, and socioeconomic status.

The pressures are strong for an egalitarian philosophy of access to postsecondary education. Egalitarians maintain that anyone who has the desire to pursue further education should be helped to do so, regardless of economic resources and regardless of past academic achievement. Adoption of egalitarian practices would in effect abolish the effectiveness of present major predictors of college entrance—SES and academic aptitude. If the meritocracy is ebbing and egalitarianism is on the rise, who *will* go to college? This chapter addresses itself to that question.

Although the description is not quite accurate, it is generally conceded that we have in this country a system of universal secondary education wherein young people who are physically and mentally able to attend high school do so. In reality, only about 80 percent of the young people graduate from high school. If we assumed that universal higher education existed when it became as common as high school graduation is today—i.e., when 80 percent of the high school graduates continued their education—then we might construct a hypothetical egalitarian form of Table 3 wherein every SES-ability cell had an 80 percent postsecondary education attendance probability. Eighty percent of those in the top quarter on both SES and ability would continue their education, and 80 percent of those in the bottom quarter on both indices would also continue in some form of postsecondary education. Reference to Table 3 shows that, in such a model, we already have universal postsecondary education for top ability-quarter males—i.e., 80 percent of the highly able male high school graduates continue their education beyond high school. Table 4 shows the reservoir of potential New Students to higher education. It is obtained by subtracting the 1967 percentages in each cell of Table 3 (the reality) from 80 (ideal egalitarianism).

TABLE 4

THE HYPOTHETICAL RESERVOIR OF POTENTIAL STUDENTS FOR THE ATTAINMENT OF EGALITARIAN POSTSECONDARY EDUCATION

Ability Quarter	*Socioeconomic Quarter*			
	1 - Low	*2*	*3*	*4 - High*
Male				
1 - Low	32	25	40	15
2	23	22	11	1
3	6	3	1	---
4 - High	---	---	---	---
Female				
1 - Low	41	33	25	20
2	40	36	16	4
3	18	12	3	---
4 - High	11	3	---	---

Source: 80 percent minus the percentage in each cell of the 1967 ETS Growth Study data presented in Table 3.

Quite clearly, most of the New Students would come from rows 1 and 2—the lower half of the class academically. There would be almost no additional males from the upper half of the class, but there would be a fairly large number of women who stand in the top half of the class academically—almost all of them from the lower half of the socioeconomic scale.

Who will go to college? New Students to higher education will be students whose performances at academic tasks in the past have been below average. Low academic ability, as that ability is traditionally nurtured and measured in the schools, will be their distinguishing characteristic. We have not yet faced the full meaning of this prediction. Many educators as well as the general public are still thinking of New Students largely in ethnic terms. True, black college enrollments have more than doubled since the mid-1960s and they will need to double again before equality of educational

opportunity approaches reality. Other ethnic groups have even farther to go. As many community college teachers know, however, educational problems are not colorbound. Two-thirds of the community colleges surveyed in the spring of 1971 stated that less than one-fourth of the students enrolled in remedial classes were members of ethnic minorities (Appendix C). The educational problems of New Students are even more difficult than those of cultural differences or routes of college access—as complicated as these are. The reality is that not only has educattion in poor schools failed these students, but education in good traditional schools has failed them as well.

It looks very much as though continuing to do better what we are now doing is not the answer. Making traditional education available to more people through increased attention to access models has probably reached the peak of effectiveness. The recruitment of academically able low-SES youth to college is beginning to be passé except as these efforts are directed toward the recruitment of women of low socioeconomic status and, in some areas, to the recruitment of members of ethnic minority groups. We need to turn our attention now to the much more complicated problems of designing educational programs that will educate those who have been relatively untouched by instructional programs of the past. Institutions of higher education are not now prepared to teach New Students. Nothing in our experience of designing educational programs has prepared us to think about whether the present meritocratic goals—i.e., high academic achievement—are compatible with egalitarian access. Do we plan to admit everyone, but graduate only those who meet meritocratic standards? Perhaps the place to start conceptualizing the enormous task before us is with achieving a better understanding of New Students.

NEW STUDENTS DEFINED

New Students to higher education, as they are discussed in this book, are operationally defined as those scoring in the lowest third among national samples of young people on traditional tests of academic ability. When the academic ability dimension is the one

under discussion, the term New Students is capitalized. Women and young people from ethnic minorities are also new students (uncapitalized), but their special problems as members of minority groups in higher education are discussed elsewhere (Cross, 1971). When they also score low on conventional tests, they are included in the primary concern of this book—New Students for whom present forms of education are inappropriate.

The definition of New Students as those scoring low on traditional tests of academic ability will pose a problem in acceptance for some readers. Therefore, let me make explicit the reasons for this decision. The primary reason, of course, is the very obvious one discussed in Chapters I and II. Young people who have not considered college in the past but who are newly entering college in the 1970s are distinguished more by low test scores than by any other single measure avialable, including race, sex, and socioeconomic status.

Secondly, the *educational* problems of New Students are concerned with their failure to perform traditional educational tasks with competence. Despite widely circulated myths of "test bias," there is good research evidence to show that tests are moderately good predictors of college grades—as good for members of minority groups as for majority youth (Cross, 1971). This is not to deny the bias of education, however. I believe that traditional education, bound to academic disciplines, *is* biased against ethnic minorities and all people from lower socioeconomic strata of society. There is widespread misunderstanding of the locale of educational bias. The problem is not so much that tests don't predict grades—better for groups than for individuals—but that grades don't seem to be related to much of anything except the ability to make similar grades under similar conditions (Warren, 1971). Naturally the greater the resemblance between the test and the situation in which you are attempting to predict performance, the more predictive value the test will have. The developers of admissions tests are successful in their mission of predicting who will make good grades in college to the extent that they can simulate in an hour-long test the tasks of the semester-long test that describes the typical classroom. The

skills required to pass a traditional test and to pass a traditional course are much more similar than are the skills required to perfrom well in the classroom and those required to perform well on a job. Thus it is to be expected that tests will be more accurate predictors of college performance than college performance is of job performance—unless the job requirements are quite similar to academic tasks.

The use of high school grades to define the group of students whom traditional education has failed might have been an alternative to the use of tests, but in the national samples used herein, the fluctuation of grades from high school to high school introduces a different kind of problem and all things considered, tests seem to be the best indicators of groups of New Students that will present educational challenges to postsecondary education in the decade ahead. The question to be answered by the research presented in this study is: What are the past experiences, aspirations, interests, attitudes, and abilities of New Students to higher education? And most importantly: What are their educational needs and interests?

Appendix B presents a picture of a few selected characteristics of New Students as they appear in each of the four major research studies synthesized in this volume. The groups defined as New Students by four different criterion tests in four diverse samples of students are much more remarkable for their similarities than for their differences. There is indeed a New Student to higher education and a research profile can be presented. Because people seem to have such vivid stereotypes of New Students, it may be useful to present a generalized capsule profile of typical New Students before embarking upon the more detailed descriptions that constitute the message of Chapters V through IX.

A CAPSULE PROFILE OF NEW STUDENTS

Most of the New Students described in this book are Caucasians whose fathers work at blue-collar jobs. A substantial number (less than one-third), however, are members of minority ethnic groups. The great majority of fathers have never attended

college and the expectation of college is new to the family. Those who constitute the New Student pool of high school graduates have not been especially successful at their studies in high school. Whereas traditional college students (upper third) have made As and Bs in high school, New Students have made mostly Cs. Traditional students are attracted primarily to four-year colleges and universities, whereas New Students plan to enter public community colleges or vocational schools.

Fundamentally, these New Students to higher education are swept into college by the rising educational aspirations of the citizenry. For the majority, the motivation for college does not arise from anticipation of the joy of learning the things they will be learning in college, but from the recognition that education is the way to a better job and a better life than that of their parents.

Most educators have become sensitized to the failure of schools in minority ethnic neighborhoods to provide adequate academic foundations upon which young people can build college educations. But in a recent study sponsored by the Carnegie Corporation, Binzen (*Carnegie Quarterly*, 1970) found that Kensington, a blue-collar community that is 99.7 percent white has some of the same problems:

> Kensington is a community in crisis. In many ways it looks, thinks, and acts like so many of the Negro ghettos festering in American cities. Its educational, political, social, and economic problems are almost as great as those found in the black slums. It, too, has failed to solve these problems, and failure has made it sullen, surly, and suspicious [p.2].
>
> People forget that, in the metropolitan areas, twice as many white as nonwhite families live in "official" poverty, and of course many Whitetowners don't quite qualify for that governmental distinction. They are poor but not poor enough to get help. Usually earning from $5,000 to $10,000 a year, the Whitetown husband and father works hard as a truck-driver or turret lathe operator or policeman or longshoreman or white-collar clerk—perhaps at more than one of these jobs—to buy and hold on to his fourteen-foot-wide house and new color television set [p.1].

> As far as can be told from the scant information available, the children of Whitetown do almost as badly on measurements of academic aptitude and achievement as do the children of the black slums, sometimes slightly worse. In Philadelphia, some inner-city districts that are 90 percent or more black (North Philadelphia, for example) produce slightly higher test scores than does Kensington's district. Yet Kensington is excluded from such federal programs as Model Cities, and many of its schools fail to qualify for aid under the poverty provision of the Elementary and Secondary Education Act (ESEA) [p.2].

While most New Students, white and black and brown, come from educationally and financially impoverished home backgrounds, many do not. More than a quarter of the young people who have not done well in traditional education are the children of fathers who have attended college. Individually and collectively their learning problems are just as tragic—their sense of school failure is just as pervasive—as those of their financially disadvantaged peers.

The very existence of this pool of relatively advantaged students as a significant minority in the New Student group points up the fallacy of assuming that traditional education has served the privileged classes well and the disadvantaged poorly. As much as we desire to correct the waste of human talent that exists as a result of poor social conditions, we need also to recognize the well-known role of hereditary factors in determining individual differences in abilities. The correction of social conditions is something we can and must do something about, but the result is not going to be the uncovering of a new pool of academic talent equal to that existing in the present college population. The concept of *academic* talent as *the* talent that is worthy of cultivation and encouragement represents an incredibly narrow perspective from which to develop new educational programs. There are many talents that the world needs now that are not recognized in the academic curriculum. Educators seem to be as blind as anyone else to the simple fact that on any unidimensional scale of human ability, there will always

be a "lowest third." Until we escape from the restrictions imposed by education's cultivation of academic talent as the brightest hope of the future, we will not have equality of opportunity.

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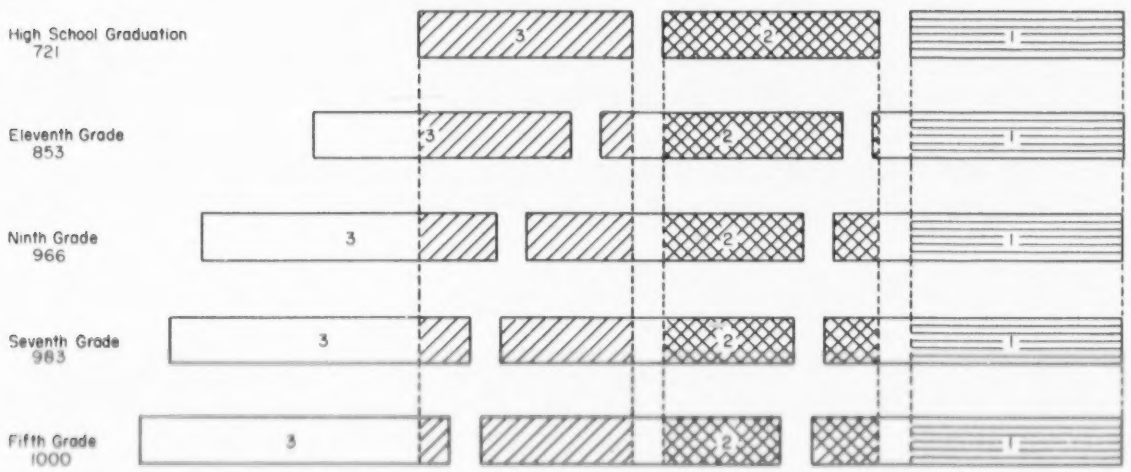
4

The threat of failure

Moving through the American school system is a very different experience for students who are in the bottom third of the class academically (low-As) than it is for those who rank in the top third (high-As). Since New Students to higher education are coming from the bottom third of the high school graduating classes, it is important to gain some understanding of their past experience with education.

It appears that the lowest third are learning throughout the years of their elementary and secondary education, but they are learning different lessons from those intended by educators. Most are becoming students of ways to avoid failure. Some of the methods they devise to protect themselves from failure can be considered ingenious; all of the methods distract attention from learning, however, and can be considered handicapping to future education. An analysis of national dropout statistics may help those who learned English and arithmetic without excessive anxiety to realize how all-pervasive the threat of failure is for those in the lowest third of the class. Relative to other children in school, the below-average youngster in the fifth grade has a much better chance of shifting his position downward by the eleventh grade than the above-average child. The very nature of the dropout statistics constantly threatens the relative position of the lower half of the class while leaving the upper half almost unaffected.

FIGURE 1
ESTIMATED RETENTION RATES--FIFTH GRADE THROUGH HIGH SCHOOL GRADUATION, 1960



Source Adapted from figures in *Digest of Educational Statistics*, 1969 edition

The downward shift of the less-apt students is illustrated in Figure 1. Based on figures from the 1960 census, it shows that for each 1,000 children in the fifth grade, 983 made it to the seventh grade, 966 to the ninth, and finally only 721 of the original 1,000 graduated from high school. Figure 1 exaggerates reality to some extent by assuming that it is *always* children from the lowest-ability groups who drop out of school. While it is certainly true that the dropouts tend to be those from the bottom of each class, in actuality, it is not the perfect relationship illustrated here. On the other hand, Figure 1 minimizes the effects of the dropout statistics on the child from a lower-socioeconomic home by illustrating nationwide trends when the rate of dropout from ghetto and rural schools in poverty areas would be much greater.

The top bar in Figure 1 represents high school graduates in the country, divided into top, middle, and bottom thirds. The bottom bar represents fifth graders, divided into three groups representing ability levels. It is clear that the bottom third of the

high school graduates consists largely of young people who were in the *middle* third of a hypothetical national fifth-grade class. By the time the class advanced to the twelfth grade, most students who were in the bottom third of the fifth-grade class had dropped out, and those who were in the middle third had moved downward to take their place. In other words, even if poor students improved their own performance each year as much as do good students, they would still fall lower in the class each year *relative* to their classmates throughout the nation. Because of the differential effect of ability on dropout rates, the pull to the bottom is like quicksand.

The top third of the high school graduates represented in Figure 1 illustrate a very different phenomenon. Following the progress of these young people back to the fifth grade, we can see that all of them were in the top third in fifth grade. A few of the top-third fifth graders have slipped into the middle third of the high school graduates, but by and large the top-third fifth graders have proceeded through eight years of school as the top third. Their position has not been threatened by the dropouts. The sorry fact is that if you are next-to-last, when the last leaves his place you become last, while whoever is first remains unaffected. There is always room at the bottom, it seems.

There are, of course, numerous reality factors that affect the hypothetical model. One, already mentioned, is the fact that the child who is nearest the bottom in academic performance is usually, but not always, the child who drops out. Research shows, however, that the school dropout generally drops from the lowest quarter of his class (Schreiber, 1966). Evans and Patrick (1969) reported that potential dropouts could be spotted as early as the fifth grade. The potential dropout has all of the characteristics that herald school failure. He is generally about a year older than his fifth-grade classmates, is in trouble academically, and is scoring significantly lower than his classmates on tests of academic achievement. In other words, he is already an old hand at meeting failure in the American school system.

The other reality factor that bears on the statistical model presented is regional variation in retention rates. Some areas of

the country have much higher dropout rates than the national average and some have much lower ones. For example, in a Texas community in which 80 percent of the school children are Mexican-Americans, 53 percent of the fourth graders did not reach the twelfth grade (Carter, 1970). These children in a rural school with an extremely high dropout rate are *more* threatened than children in a suburban school who, if the dropout rate were zero, would maintain their relative positions throughout the school years.

In his 1965 message on education to Congress, President Lyndon Johnson observed: "In our 15 largest cities, 60 percent of the tenth-grade students from poverty neighborhoods drop out before finishing high school." The dramatic effect of this statistic is illustrated in Figure 2. Assuming again that it is the least successful students who drop out, we see that students who were doing *above-average* work as sophomores in high school graduate in the *bottom* third of their class. The rate at which they moved to that position relative to their own classmates is truly alarming. If senior high school teachers grade on the curve, a B student as a sophomore may quite suddenly find himself a D student as a senior with *no* changes in his own study habits.

FIGURE 2

ESTIMATED RETENTION RATE IN OUR 15 LARGEST CITIES

Source Based on a statement by President Lyndon Johnson in his 1965 message on education to Congress

Even in suburban schools where there is very little dropout and students tend to maintain their relative positions, to be in the top third of the class from the first grade through high school represents something important and altogether different in our achievement-oriented society than to be forever in the lowest third. The psychology of failure is threatening and reinforcing.

The longitudinal Growth Study conducted by ETS provides an excellent opportunity to examine empirical data to see

what actually happens to groups of students as they move from the seventh grade to the eleventh grade. Table 5 shows actual data collected from 633 students who scored in the lowest third of the eleventh-grade national norms in 1965 on the combined verbal and quantitative sections of the School and College Ability Tests (SCAT-T).

TABLE 5

PERCENTAGE OF LOW-A ELEVENTH GRADERS SCORING IN HIGH, MIDDLE, AND LOW THIRDS ON SEVENTH, NINTH, AND ELEVENTH-GRADE NORMS

	Lowest Third	*Middle Third*	*Highest Third*
1965 - Eleventh Grade	100	0	0
1963 - Ninth Grade	63	34	3
1961 - Seventh Grade	52	45	3

Source: ETS Growth Study data.

Starting with the top line, the data show that 100 percent of the 633 students scored in the bottom third on SCAT-T in the eleventh grade because that is the reference group with which we start. Thirty-four percent of these same students, however, scored in the middle third of national ninth-grade norms in 1963, and 45 percent, or nearly half, were middle-third students relative to seventh graders across the country in 1961. In other words, nearly half of the young people in the Growth Study sample who made it to the eleventh grade but were fairly poor students (lowest third) by the time they did so had been average students (middle third) as seventh graders. Their route over five very important developmental years has been downward. The other half of the unsuccessful students in the eleventh-grade class started their bout with failure even earlier; they were bottom-third students in the seventh grade. The three percent in the top third of the seventh- and ninth-grade years shown in Table 5 probably represent measurement errors of the testing or unusual personal situations.

The empirical data for the *top*-third students in 1965 look quite different. Table 6 illustrates the statistical history of 1,721

students who scored in the top third on SCAT-T norms when they were in the eleventh grade in 1965. Obviously, most of them were in the top third all the way through school. None was ever in the bottom third. Some moved from the middle third to the top third. Thus, even with errors of measurement, the empirical data support the theoretical model that posits that top-third students sail through school with their relative position unassailed, while their less facile classmates wage a perpetual battle to keep from slipping relatively lower as they proceed through school.

TABLE 6

PERCENTAGE OF HIGH-A ELEVENTH GRADERS SCORING IN HIGH, MIDDLE, AND LOW THIRDS ON SEVENTH, NINTH, AND ELEVENTH-GRADE NORMS

	Lowest Third	*Middle Third*	*Highest Third*
1965 - Eleventh Grade	0	0	100
1963 - Ninth Grade	0	5	95
1961 - Seventh Grade	0	12	87

Source: ETS Growth Study data.

SCOPE data show the toll taken in this battle. Whereas a certain minority of young people confess that school makes them nervous, the proportion of high school seniors scoring in the lowest third admitting that they often feel nervous, tense, or shy in class is almost double that for high-A students—38 percent to 21 percent—with girls at all levels of ability expressing greater strain than boys. Holt (1970) presents a colorful description of the anxiety present in most American classrooms. When he asked elementary school children how they felt when the teacher asked them a question and they didn't know the answer, one boy "spoke for everyone" when he said in a loud voice "Gulp!" Holt wrote:

> I asked them why they felt gulpish. They said they were afraid of failing, afraid of being kept back, afraid of being called stupid, afraid of feeling themselves stupid. Stupid. Why is it such a deadly insult to these children, almost the worst thing they can think of to call each other? Where do they learn this [p.63]?

One of the unintentional lessons learned by students who start their school careers handicapped by the lack of verbal and other academic skills is that failure is always reaching out to envelop them. The picture is not unlike that of a strong and a weak swimmer thrown into downstream currents above a waterfall. The strong swimmer soon swims to calm waters and begins to focus his attention on how fast he can swim, while the weak swimmer is dragged into such swift currents that his only concern is to keep himself from going over the waterfall. In the language of psychology, the strong swimmer becomes achievement-motivated while the weak swimmer becomes fear-threatened. Future learning is structured differently for the two swimmers.

Atkinson and Feather (1966), in their theory of achievement motivation, point out that the typical achievement-oriented person works hardest at a task of intermediate difficulty where his chances of success are 50-50. He is not challenged by a too-easy task because its successful completion is assured and hence will give him no rewarding feeling of success. Neither does he choose a task in which his chances of success are quite slight, for in that case his reward is too unlikely. He is basically realistic, raising his aspirations with success and lowering them with failure. When he approaches a task where the outcome is ambiguous, he is motivated to try his skills because his past batting average is extrapolated to predict success in a new venture even when relatively little concrete information is available concerning his chances. In other words, he has self-confidence and is willing to take some risks.

The Atkinson-Feather theory makes a different prediction, however, for the failure-threatened personality. If the major concern is to avoid failure, then the task of intermediate difficulty is to be shunned as most dangerous. The failure-threatened individual avoids tasks in which the outcome is uncertain. He is motivated to defend himself against the threat of failure either by selecting easy tasks where success is virtually assured or by attempting such difficult tasks that failure is expected and therefore not threatening. John Holt (1970) is a sensitive observer of children and his very

readable book, *How Children Fail*, gives some insight into the experience of failure as it is lived daily by school children across the country. He observes: "Children [who fear failure] . . . may decide that if they can't have total success, their next best bet is to have total failure [p.85]." In much more complex and theoretical language, that is exactly what Atkinson and Feather are saying.

The explanation of the operation of the fear-of-failure reaction to learning may underlie what many community college educators see as highly unrealistic aspirations in their low-A students. Not to succeed at being a doctor or a lawyer is not very threatening because neither the student nor his associates have any real expectation that such a goal will be realized. Froomkin's (1970) presentation of data showing that nearly one-third of minority youth with "very low" verbal-ability test scores hoped to graduate from a four-year college lends support to the theory. Since fewer (15 percent) Caucasians of the same low level of tested ability showed what must be labeled "unrealistically" high educational aspirations, the following explanation might be advanced. Some low-ability whites in the higher income brackets might "realistically" be expected, by themselves and by others, to graduate from college. For low-ability, high-SES youth to say that they hoped to obtain bachelor's degrees constitutes a threat, since it is quite possible that they could be called upon to prove that they could accomplish their goal. They are unlikely to expose themselves to that 50-50 area of risk. For a low-ability black youth to say that he planned to graduate from a four-year college represents a rather different situation. It is not threatening because, in the present society, he doesn't really expect to have the chance to prove whether he could or not; for him the possibility of a college degree is not 50-50.

There are, of course, other plausible explanations for the high educational aspirations of minority youth, the most obvious being that education offers a possible escape from life in the ghetto. The Coleman report (1964) credited the differences in aspirations between low-scoring majority and minority youth to the lack of opportunity for minority youth to evaluate their performances realistically. Many low-scoring minority youth actually believe that

they do fairly well in school because they evaluate their performances against those of their own schoolmates. Since they perform well by the standards of their own school, they have a higher self-regard than low-performing white children in suburban schools that may offer comparison with a wider cross section of students.

There is no necessary conflict between the Coleman hypothesis and the fear-of-failure hypothesis advanced here. Coleman's explanation seems appropriate for upper-third students in ghetto schools (who may still score very low on national norms); the fear-of-failure explanation would fit those in the middle and lower thirds who find themselves dropping lower, relative to their classmates, as they proceed through school.

Aspirations need not be high to be unrealistic. Fear-threatened personalities that show very low aspirations are also readily explicable. Some high school and community college teachers have observed a kind of dogged persistence as their students repeat a lesson that they know over and over again, while steadfastly refusing to venture to the next step in learning. They have found that success is assured as long as they stick with something they know; failure threatens when they try new things. Theoretically, the explanation for low aspirations is that students can hardly be blamed for not accomplishing something that they don't attempt. They have learned to fear putting themselves to the test, and hence they don't get themselves involved in situations which involve the risk of failure. Holt (1970) has observed this characteristic in the learning approaches of children. He notes:

> Incompetence has [an] advantage. Not only does it reduce what others expect and demand of you, it reduces what you expect or even hope for yourself. When you set out to fail, one thing is certain—you can't be disappointed. As the old saying goes, you can't fall out of bed when you sleep on the floor [p.86].

Experimental support for this hypothesis can be found in the SCOPE data collected from high school seniors. Students scoring in the lowest third on a test of academic ability were more

than twice as likely as students scoring in the top third to want to avoid the possible failure situation of being rejected by a college of their choice. Forty-eight percent of the low-A students and 21 percent of the high-A students said that "If I were to apply to a college, I'd choose one I was sure of getting into." When the willingness to take risks was put very baldly by asking students whether they agreed or disagreed with the statement, "I want to know that something will really work before I am willing to take a chance on it," 58 percent of the low-A students and 37 percent of the high-As agreed that they wanted that assurance.

If these analyses are correct, we would predict that low-achieving fear-threatened high school seniors would apply either to open-door community colleges or to highly selective colleges. They would be assured of acceptance at the open-door colleges, and to be turned down by Harvard is not really very threatening to the student who has no expectation of going there.

These theoretical and experimental analyses may have important implications for programs for the undereducated that are launched by moderately selective colleges, such as many state colleges and universities. To students who have built their personality defenses to avoid failure, application for admission to these programs may prove very threatening indeed. The prestige of the colleges is not high enough to make rejection an honor, nor are the standards low enough to made acceptance a certainty. If they do apply and are accepted, it is suggested that the college should be prepared to allocate adequate resources to provide the necessary instructional and counseling support while the fear-of-failure pattern is replaced with a more positive self-confident approach to learning. It is hypothesized that the greatest dropout from special admissions programs would occur among middle-ability students in the program when the competition with regular students at the college became real. If, for example, the students take remedial courses by themselves for the first semester and then enter regular classes in the second semester, I would predict a high dropout at the end of the first semester for the middle-ability students in the special program. If the remedial program is successful for some, but not

all, students, the best students will become achievement-oriented through their relative success in the program. Some of them will find themselves among the best students in the group for the first time in their lives. They may find that they are able to compete with regular students without excessive anxiety. But the poorest students in the special admissions program may not find competition a threat, either, because they "know" they won't succeed anyway. For those students in the middle, where the probability of success is closer to 50-50, the theory predicts considerable reluctance to put themselves to the test.

A vivid example of what can happen when low-achieving students are accepted into college without making any special provisions for help in reorienting their learning habits is illustrated by Rose (1965); she describes an experimental program which was tried and later abandoned by a state university. Although the university practiced nonselective admissions for in-state students, college officials felt that students with high school averages of less than C should be warned that their statistical chances of success were low. The 290 students falling in the high-risk category were sent a letter by the admissions office suggesting that academic difficulties could be expected, and if they still wished to enter, an interview was required. The interview, as described by Rose, certainly should have reinforced any fear-of-failure tendencies on the part of the students. The counselor offered advice concerning study habits, the necessity of carrying a light course load, the inadvisability of working part-time, the advisability of seeking help from the counseling service, etc. The amazing thing is that it discouraged only ten percent of those who came for the interview. This situation could be accounted for by the fear-of-failure theory. "Knowing" that their aspirations are unrealistic affects achievement-motivated personalities but it would not be expected to affect failure-threatened personalities, and no doubt most of the students required to appear for the interview were failure-threatened. At the end of the first semester, 81 percent of the group that entered the college despite the warnings were on probation or had withdrawn. By the end of the second semester, only eight percent of the students were in good standing, compared with 41 percent of the total freshman class that served as the control group.

State universities with escalating academic standards frequently found themselves in this situation in the 1950s and early 1960s, and many attempted to deal with the problem in the manner described—i.e., by advising those who were poor risks of the improbability of success. The author recalls participating in one such effort as a member of the counseling staff at a state university where we were attempting to be realistic with lowest-quarter students. To our amazement, we found that the best of the lowest-quarter students (for whom the choice was not totally unrealistic) "got the message" and withdrew, whereas the students with the poorest chances insisted on enrolling.

Today the approach to low-achieving students is to admit them as high risks and to provide special programs for them. Many programs are claiming great success in retention, but there is not, as yet, much evidence of academic success as measured by college grades or tests of academic achievement.

According to the theoretical and research analyses just presented, successful remediation programs would need to devote considerable attention to a total reorientation of the students' approach to learning situations. The fairly successful College Discovery Program launched by the City University of New York in 1965 has reported that after four semesters 57 percent of the students were still enrolled (Tormes, 1969). Of considerable interest is their finding that the major personal change attributed to the college experience by survivors in the program was an increase in self-confidence; among dropouts the major change resulting from the college experience was thought to be "a broadening of intellectual and career horizons." The fact that it was the survivors who reported increased self-confidence suggests that they were the students who changed from failure-threatened individuals to achievement-motivated students.

Holding unrealistic aspirations is one way of reacting to threats of failure. More troublesome to college personnel attempting to teach remedial courses are students' apparent passivity in learning situations. Students seem to be saying that they cannot fail at what they don't try. Instead of assuming that effort and success are

related, the failure-threatened individual assumes that effort and failure are directly related. The rationale seems to be: If I don't try very hard, I won't fail very much.

In response to a questionnaire item (Appendix C) asking administrators of remedial services in two-year colleges what they perceived to be the *major obstacle* to learning for low-achieving students, "lack of effort; has quit trying" ranked first. The rankings in order of priority were as follows:

Lack of effort; has quit trying

Poor home background

Poor elementary and secondary schooling

Fear of failure

More interested in nonacademic matters such as car, sports, job, etc.

The necessity of working at a job precludes time and energy for study

Low intelligence

Some basic research in psychology has implications for understanding the phenomenon of passivity in learning. Seligman (1969) and his colleagues made laboratory dogs "passive" to new learning experiences and then experimented with procedures that would make them into "active" learners again. In a sense this is our goal for New Students—to take students whose natural curiosity and bent for learning has been stifled through past experiences with education and make them want to learn again. Although dogs are not people, the parallels to human learning and to failure-threatened personalities make for fascinating speculation and the generation of some testable hypotheses. Seligman and his colleagues conducted a standard conditioning experiment. Their naive dogs behaved just as the dogs in the Psychology 100 textbooks do. In these

experiments, the dog was placed in a box with an electric grid on the floor. The lights dimmed, ten seconds later the shock came on, and the dog howled and ran around showing fear and lack of purposive behavior. During this random activity, the dog managed to throw himself over the barrier and out of the box, at which point he escaped from shock and the lights went on again. The next time the lights dimmed, the dog started his fear reaction, the shock came on, and the escape from the box and the shock was more rapid and purposeful than before. With repeated trials, the dog finally jumped over the barrier as soon as the lights dimmed, thus avoiding the shock altogether.

But Seligman found that the reaction is very different for dogs introduced to the experiment twenty-four hours after being shocked in the box *while in a harness* that prevented escape. These dogs entered the conditioning experiment "knowing" that nothing they did would terminate the shock. Struggling in the harness had no effect. When they were later put in the box *unharnessed* and free to learn to escape just as the naive dogs had been, they howled for just a few seconds when the shock came on and then settled down and took the shock. After several trials, the dogs ceased even to try to escape and became passive or helpless.

The situation is analogous to that of a young student who tries hard in the beginning, but who finds that he never gets rewarded by an A, the teacher's approval, or classmates' admiration. In other words, his efforts, like those of the dog struggling in the harness, are futile. After repeated experience, he does learn something—that the result of trying is failure. The resultant personality characteristic would appear to be passivity in learning.

There is tentative research evidence to indicate that the phenomenon of passivity does exist among low-A students. On an active-passive scale used in the SCOPE questionnaire, low-A students tended to score lower—i.e., were more passive than high-A students. The scale consisted of items such as "When I can't do something easily, I usually give up" and "When I face a tough problem, I don't work on it much because I probably won't solve it." Students scoring

in the lowest third on the academic ability measure were roughly twice as likely to exhibit traits of passivity as were high-A students. Forty-six percent of the New Students and only 25 percent of the traditional students scored in the lowest third of the high school senior population of the SCOPE sample.

Other researchers, too, have commented on the passivity of low achievers (Roth & Meyersburg, 1963). The passive learning orientation of some the the high-risk students in the College Discovery Program at the City University of New York (CUNY) is illustrated by the finding that dropouts from the program studied fewer hours per week than survivors and, furthermore, they were aware that they were studying less (Tormes, 1969).

Clearly, new approaches to learning for these passive students must be found. The problem appears twofold: how to restructure the learning situation so that they will try again, and how to reward the effort. In his experiments with dogs, Seligman worked with these same two problems. He found that getting the dogs to unlearn fatalistic acceptance and to learn that they could make responses relevant to controlling the shock proved a formidable task. After the dog had quit trying to escape, it was highly unlikely that an accidental leap over the barrier would show that it could avoid the shock. So Seligman set about the teaching task of showing helpless dogs that there could be a relationship between their responses and the termination of the shock:

> We dropped meat on the other side of the barrier to encourage helpless dogs to escape shock; we took the barrier out altogether; we called to the dogs from the nonelectric side. Nothing worked. As a last resort, we pulled them back and forth across the box on leashes, forcibly demonstrating to them that movement in a certain direction ended shocks. This did the trick, but only after much dragging. Dogs so treated finally learned to escape shock on their own [p.44].

There is more than a little speculation involved in the assumption that animal learning is directly transferable to human behavior. Complex human learning is not *explained* by simple animal

learning, but the conditioning experiments do permit some important observations by revealing with stark simplicity some of the elements of learning. The dogs in Seligman's experiment had "learned" that effort was futile, and it took a great deal of persuasion to convince them that the situation had changed and that they could exercise some control over what happened to them.

The analogy in human learning is that we must prove to the student who has learned that it is futile to try that a new kind of learning situation exists in which there is a high probability for success. The guaranteed-success programs now being tried in some remedial education programs show considerable promise for helping students to reorient themselves to learning tasks. (See Chapter X for a further discussion of guaranteed-success and reorientation-to-learning courses for New Students.) The basic goal of guaranteed-success programs is to demonstrate to the student that success is the almost certain result of trying. This is in keeping with the Atkinson-Feather theory that posits that failure-threatened personalities will approach tasks that are assured of success. The Seligman experiments indicate that considerable persuasion and understanding and perhaps firmness may be necessary to convince the learner to take the initial steps that will show him that through his own efforts he can succeed in school learning tasks.

In summary, the research shows that the great majority of students who graduate in the lowest third of the high school class (New Students) have either been in the bottom third of the class throughout their school years or have had the experience of moving ever lower in academic performance relative to their classmates. Such experiences are extremely threatening to the self-esteem of young people, and New Students demonstrate the toll extracted by their constant battle with failure in the school situation. There is research evidence to indicate that New Students are characterized by being more fearful of putting themselves to a test of their abilities than are their more successful peers. They have learned that learning involves risks to the ego. There is, after all, always the chance that in approaching any new situation—which is the essence of learning—they might fail. Whereas the past experience

of good students tells them that they probably will succeed, the past experience of poor students tells them that they will probably fail.

According to theory, one set of expectations results in an achievement-oriented personality whereas the other set results in a failure-threatened personality. Successful students are motivated to try; unsuccessful students are motivated to protect themselves against the threat of failure by not trying. They seem to say: "If I don't try very hard, I can't fail very much."

The attitudes of New Students support the theory. They are less confident of their abilities; they avoid risk situations where possible; and they are more likely than traditional students to obtain passive scores on a scale measuring the tendency toward active or passive approaches to life and its demands. For New Students, the school situation has been a fearful experience, and the lessons they have learned are handicaps to future learning. In developing new educational programs for New Students, one of the first tasks will be to provide a new perception of the learning process.

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5

Attitudes and values of new students

The past home and school experiences of young people have a profound effect upon the formation of their attitudes and values. As we have seen in Chapter IV, New Students have had very different school experiences from those of traditional students. It is easy to make the error of assuming that students in the same classroom are exposed to the same lessons. The conclusion that follows from such an assumption is that traditional students have learned the lessons well whereas New Students have learned the lessons poorly or not at all. In fact, however, there is strong evidence to show that New Students have had some powerful learning experiences—but they have been working on the problem of learning to protect themselves against further failure rather than upon the teacher-perceived lesson of learning arithmetic or English. They have learned the rather practical lesson of how to adopt certain attitudes and values that will help them to cope with life as they find it. And they find a different life—at home and in school—from that experienced by good students from the upper socioeconomic strata of society.

HOME AND SCHOOL: SHAPERS OF ATTITUDES

Data from the Comparative Guidance and Placement Program (CGP) has offered an opportunity to look separately at the two primary shapers of attitudes—home and school. By

establishing four groups of students we can look at similarities and differences in the attitudes of students who come from similar home backgrounds but different school experiences, and vice versa.

It has been possible to classify 9,490 CGP students who were entering community colleges in the fall of 1969 into four groups. Group 1 consists of low-SES New Students. These are students who scored in the lowest one-third (low-A) of the total CGP sample on a traditional verbal test and whose fathers are blue-collar workers.* Group 2 consists of low-A students with high-status white-collar fathers. Group 3 consists of top third students with blue-collar fathers; and Group 4 represents the high-achieving sons and daughters of white-collar fathers. Table 7 shows how the 9,490 students are distributed.

TABLE 7

ENTERING TWO-YEAR COLLEGE STUDENTS BY VERBAL APTITUDE AND FATHERS' OCCUPATIONS

Fathers' Occupations	*Verbal Test Score*		
	Lowest Third	*Highest Third*	*Total*
Blue Collar	(1) 4796	(3) 2925	7721
White Collar	(2) 692	(4) 1077	1769
Total	5488	4002	9490

Source: CGP, 1969.

Students in Group 1 possess the home and school backgrounds that we think of as most typical of New Students. They are doubly disadvantaged, coming as they do from homes of low socioeconomic status and doing poor work in school. Numerically they represent the largest of the four groups, with 4,796 of the 9,490, or about half of the total sample, falling into this category. Group 1 also contains the heaviest concentration of

*Unskilled, semiskilled, skilled, or service workers are considered blue collar; white collar includes all professions requiring a bachelor's degree or more, or executive status. Middle-level status, including salesmen, office workers, junior executives, and managers are excluded from these groupings.

non-Caucasian students; 81 percent of the students of ethnic minority backgrounds fall into this doubly disadvantaged category. There are very few of the 2,350 non-Caucasians in the CGP sample who have escaped the double handicap of low SES and low-A. Only 26 minority students (one percent) fall into the privileged group of high SES and high-A; 292 (12 percent) could be described as upwardly mobile through education. These students come from the homes of blue-collar workers, but they have been high achievers in school, ranking in the top third of the CGP sample of community college entrants. Five percent (123 students) of the minority students are from the homes of college-educated fathers doing professional work, but the students themselves have not done well in school.

Group 3 (high-ability sons and daughters of blue-collar workers) is the next largest in size to Group 1, with 2,925 students, or about one-third of the total sample. These students represent the most upwardly mobile segment of the community college population. The majority are enrolled in the transfer curriculum of the community college and most will go on to bachelor's degrees. Their primary need is probably financial assistance. On the basis of these rough indices, they possess both the ability and the motivation to succeed in the traditional college curriculum.

Group 2 is the smallest group with 692, or seven percent, of the students who will probably take jobs of lesser academic qualifications than those held by their fathers—although it is also likely that some from this relatively socioeconomically privileged group will graduate from nonselective four-year colleges.

Group 4 is the group that we have referred to as traditional college students; while they represent only 11 percent of this two-year college sample, they might constitute 90 to 95 percent of the student body of a selective university. One might inquire about the motivations of these students who presumably have both the ability and the financial resources to start their college study in four-year institutions. Many of them are women who may be preparing to become nurses or secretaries; others may be residents

of states where most students begin their college careers in junior colleges. With the rapid expansion of the purposes of junior colleges, there are any number of personal reasons why students might choose to begin their college careers in the two-year college. Some motivations may become apparent as we examine the data presented in Tables 8 through 13.

TABLE 8

PERCENTAGE OF ENTERING TWO-YEAR COLLEGE STUDENTS IN COLLEGE-PARALLEL CURRICULUM, BY VERBAL TEST SCORE AND FATHERS' OCCUPATIONS

Test Scores by Fathers' Occupations	*Percentage*
High-A, White Collar	76
High-A, Blue Collar	65
Low-A, White Collar	57
Low-A, Blue Collar	43

Source. CGP, 1969.

Table 8 shows the percentage of each of the four groups planning to pursue the college-parallel curriculum in junior college. Obviously, most students with high test scores plan to continue with more of the traditional education at which they have excelled in the past. New Students (low-As) of either high or low SES are more likely to be found in the technical or vocational curricula of two-year colleges. Notice that low-A blue-collar students are the only group to have a majority enrolled in programs other than the traditional college-parallel course of study. Remember, too, that this is the largest of the four groups represented in the two-year college student sample of the CGP. The primary influence in choice of curriculum is *academic* ability. Students scoring high on the test, regardless of the occupations of their fathers, tend to elect the traditional college-parallel option. *Within* a given range of ability, however, a student is more likely to choose the college-parallel course of study if his father is a white-collar worker.

While all of the percentage differences between groups are highly significant statistically, the big difference in Table 8 occurs between the stereotype of the traditional student (high-A, white collar) and the stereotype of the New Student (low-A, blue collar). Most traditional students choose the traditional curricula, as indeed

we should expect if our labels are correct. New Students show less unanimity in their choice of vocational curricula. This probably reflects the conflict they face in selecting courses of study which they may prefer and feel that they can do well in, as opposed to choosing the academic courses which have greater prestige and the greater opportunity for high-status jobs.

There is a tendency for children to follow in the occupational footsteps of their fathers. If the low-A and high-A children of white-collar fathers are considered as a single group, 69 percent of the white-collar students are pursuing a college-parallel curriculum and they probably plan to enter occupational levels similar to those of their fathers; 49 percent of the total group of blue-collar students are preparing for blue-collar vocations. There are a significant number of high-A children of blue-collar fathers (1,901 in this sample), however, who will strive for upward mobility through education, and there is a much smaller group (298) of low-A children of white-collar fathers who will probably settle for lower occupational status than that of their parents. Overall, it appears that about one-third (31 percent) of the youth from white-collar professional homes attending community colleges are preparing for occupations requiring *less* education than their fathers' occupations, while over half (51 percent) of the blue-collar youth hope to move up to occupations requiring more education than their fathers' occupations.

There is some evidence to indicate that the desire to move up the educational ladder is more than mere wish on the part of blue-collar youth attending two-year colleges. Table 9 shows the percentage of each group saying that school grades were either very important or quite important to them.

TABLE 9

PERCENTAGE OF ENTERING TWO-YEAR COLLEGE STUDENTS SAYING GRADES WERE IMPORTANT, BY VERBAL TEST SCORE AND FATHERS' OCCUPATIONS

Test Scores by Fathers' Occupations	*Percentage*
Low-A, Blue Collar	84
Low-A, White Collar	75
High-A, Blue Collar	74
High-A, White Collar	65

Source: CGP, 1969.

Grades, the symbols of achievement for young people whose chief business is going to school, are most important to those who have the hardest time getting them. And perhaps that is to be expected. The size of the percentages shows that grades are considered important by most young people, but for some borderline students grades will become crucial gateways to futures, determining whether the student passes a course, remains in school, or attains a degree. Within the blue-collar groups, low-A students are ten percent more likely than high-A students of the same general background to attach great importance to grades, and exactly the same differential exists between low-A and high-A students from white-collar homes. But for students of roughly equal ability, those from blue-collar backgrounds attach more importance to grades than do those with professional and executive fathers. This finding may reflect the importance of the credentialing function of education for upwardly mobile youth; good grades are quite realistically a way to get ahead. There is, however, a theme that runs throughout the data on attitudes and interests that shows the preference of New Students for concrete tangible rewards as opposed to more implicit intangible rewards. Grades are valued by 84 percent of the young people who represent educationally and socioeconomically disadvantaged New Students to higher education.

Students from blue-collar homes are more likely than their white-collar peers to feel that grades are important, and in a two-year college student sample, they are also likely to have made better grades in high school. Table 10 shows the percentage of each group reporting that they had better than a C average in high school.

TABLE 10

PERCENTAGE OF ENTERING TWO-YEAR COLLEGE STUDENTS MAKING ABOVE A "C" AVERAGE IN HIGH SCHOOL, BY VERBAL TEST SCORE AND FATHERS' OCCUPATIONS

Test Scores by Fathers' Occupations	*Percentage*
High-A, Blue Collar	77
High-A, White Collar	68
Low-A, Blue Collar	54
Low-A, White Collar	49

Source: CGP, 1969.

Of course, those who score high on a test known to predict grades made better high school grades than low scorers, regardless of SES, but the finding that blue-collar youth markedly outperform white-collar youth of the same general band of ability seems a reversal of the usual trends. The explanation probably lies in the fact that the CGP sample represents only entrants to two-year colleges. Highly able, academically oriented blue-collar youth may attend two-year colleges because they lack the money to go elsewhere. The children of the high-status white-collar group used in these groupings, however, are not likely to have chosen two-year colleges primarily for their low cost. They may be attending community colleges because they want specialized training in a career field, because their friends are going there, because they want to live at home, or because of any number of personal reasons that are not related to their motivation for *academic* study.

Table 11 shows, however, that not only do the blue-collar youth show greater academic motivation, they are also more highly motivated to achieve vocationally. The conclusion seems to be that highly motivated white-collar youth, without the financial restraints of their blue-collar fellow students, enter four-year institutions, whereas highly motivated blue-collar youth are found in substantial numbers in community colleges. Blue-collar students who are not well motivated for further education don't enter college at all, whereas white-collar youth of the same low motivation may simply take the path of least resistance and enter a college near home.

TABLE 11

PERCENTAGE OF ENTERING TWO-YEAR COLLEGE STUDENTS SCORING ABOVE THE MEAN ON VOCATIONAL MOTIVATION, BY VERBAL TEST SCORE AND FATHERS' OCCUPATIONS

Test Scores by Fathers' Occupations	*Percentage*
Low-A, Blue Collar	56
Low-A, White Collar	46
High-A, Blue Collar	41
High-A, White Collar	34

Source: CGP, 1969.

The Vocational Motivation Scale of the CGP attempts to assess the student's interest in a vocation and, in particular, his attitude about education as preparation for a career. It consists of items such as: "The main reason for continuing your education beyond high school is to prepare for a job that pays well." Possible responses range from "strongly agree" to "strongly disagree." Another example is: "In school this year, do you plan to concentrate mainly on learning things that will be useful to you in your future work?" The four possible responses range from "definitely yes" to "definitely no."

Low-A students are more likely than high-A students to view education as a means to better jobs. But it is significant that attitudes about the purposes of education appear to be shaped more by experience in the school system than by family background. Academic ability bears the primary relationship to a vocationally oriented view of education. Low-A students are more vocationally oriented than high-A students, regardless of home background. Once again we see some evidence of the pragmatic orientation of New Students. Specifically, high-A students are not as concerned as low-A students about the usefulness of education. When asked if they planned to concentrate mainly on learning things that would be useful to them in their future work during their first year of junior college, 36 percent of the low-A students and 25 percent of the high-A students said "definitely yes." It should be recognized, however, that many of the low-A students have already entered college with the intention of preparing themselves for jobs. A nursing student, for example, is much more likely to associate college study with specific job skills than is a student pursuing a liberal arts curriculum who may be hard put to describe just what job her study will prepare her for. In support of this observation are data showing that low-A women pursuing nursing and business careers score especially high on the Vocational Motivation Scale of the CGP.

The data presented in Tables 7 through 11 have all dealt, in one way or another, with aspects of students' attitudes about education—choice of curricula, importance assigned to grades, perceptions of the purpose of education, past record of school

success. There is a common pattern emerging: Young peoples' perceptions about education seem shaped more by their experiences in the school system than by their experiences at home. In Tables 8 through 11, all of the *primary* groupings are based on test scores with *secondary* groupings deriving from fathers' occupations. In other words, the suggested hypothesis is that when it comes to attitudes and values about education students are more likely to think like their academic-class peers than they are to think like their social-class peers. The criteria for grouping used here are admittedly rough, as is the analysis, and I have suggested a hypothesis for test rather than a final conclusion. Chapter IV showed how different the school experience is for students who rank in the bottom third of the class when compared with those who sail through their formative years in the top third. New Students, it appears, are a distinctive group whose experiences with and expectations about education have some common bases.

There are some areas, however, in which socioeconomic class plays a more important role than academic ability. Not surprisingly, those areas have to do with financial resources for education.

TABLE 12

PERCENTAGE OF ENTERING TWO-YEAR COLLEGE STUDENTS WHO PLAN TO WORK MORE THAN 15 HOURS PER WEEK AND WHO ARE CLASSIFIED AS HAVING CONSIDERABLE FINANCIAL NEED, BY VERBAL TEST SCORE AND FATHERS' OCCUPATIONS

Test Scores by Fathers' Occupations	*Work More than 15 Hours*	*Considerable Financial Need*
Low-A, Blue Collar	52	71
High-A, Blue Collar	45	62
Low-A, White Collar	41	50
High-A, White Collar	32	36

Source: CGP, 1969.

Table 12 shows the percentages of each group saying that they planned to work more than 15 hours per week during the school year. The order corresponds exactly to that shown by the Financial Need Indicator of the CGP. The Financial Need Indicator

is an index which is derived from student answers to questions in the Biographical Inventory concerning family financial circumstances. If the family resources available for education total $625 or less for the year, the student is classified as having considerable need even at a low-cost institution. (For further details, see CGP, 1969.)

The results are as expected: Students from working-class families have greater financial need and plan to work longer hours during the school year than do those from the families of professionals. On the whole, the Financial Need Indicator separates the groups more sharply than do students' statements about plans to work. If there is any surprise in these data, it is found in the small (four percent) difference between the high-A blue-collar group and the low-A white-collar group who plan to work extensively during the school year. The probable explanation is that while it may be a matter of necessity for the child of working-class parents to help with college expenses, the young person of low academic ability may work as a matter of preference—to find the satisfactions out of school that have not been forthcoming in school. This interpretation is supported by further analyses which will follow.

PERSONALITY CHARACTERISTICS

Perhaps the most comprehensive study of the relationship between personality measures and school success has been reported by Project TALENT (Flanagan, et al., 1964). In a massive assault on the question, the TALENT staff computed thousands of correlations among 13 specially constructed measures of personality, 21 measures of cognitive functioning, 12 indices of study habits, and a variety of items related to the backgrounds and experiences of high school seniors.

As with most personality data, the correlations with school achievement were not high, but from those that are statistically significant we can construct the following generalized personality picture of students who make good grades in high school. They describe themselves as leaders and as calm even-tempered, confident,

and usually at ease. They maintain that they are hard working and dependable and that they make good use of their time, turn out work rapidly, and do their jobs even when they don't feel like it. They value good manners and good taste and are neat in appearance and work habits. In school, they say, they have no trouble keeping their minds on their studies, are good readers, and have little trouble expressing themselves. They like difficult assignments and do a little more than courses require. They direct their attention to important points, feel that they are productive, and are conscientious about keeping up with assignments.

It is no strain on credulity to believe that young people possessing these characteristics make good grades. The traits seem to cluster, and the very frequency with which they occur together has given rise to labels for the syndrome. In professional circles, the cluster may be termed the achievement syndrome; laymen are familiar with the Protestant ethic, and most recently the phrase "middle-class values" has come into prominence. The latter term is used, often in a pejorative way, to describe students who behave in a manner pleasing to teachers. Such actions include doing things that teachers feel are important, such as studying hard, handing in assignments on time, and paying attention in class.

At the present time, there is considerable debate over whether to emphasize changing the schools so that the practice of middle-class virtues is not a prerequisite to success or whether to work on modifying the behavior of unsuccessful students. Those who have written about the problems of underachievement have tended to focus upon modifying the behavior of students to fit a presumably static school system whereas those working with the disadvantaged have tended to emphasize changing the schools to fit the learning styles of students. Despite the rhetoric that sometimes makes it appear as if one path or the other were the total answer, it is almost certain that some modification is called for in the behavior of both schools and unsuccessful learners. The present tendency among writers to overemphasize needed changes in the school system seems justified to this author for the simple reason that, until now, it has been a one-way street with the student

adapting (or failing to adapt) to the demands of the schools. If he didn't learn, it was considered his "fault," and he suffered the consequences. I see no particular merit, however, in attempting to correct this situation by a swing of the pendulum to the equally rigid position of assuming that failure to learn is the sole fault of teachers and schools. At the level of postsecondary education, at least, it seems to me that we will make better progress if learning is considered a joint responsibility of learner and teacher.

To accept in toto the new emphasis on accountability in the elementary schools as equally appropriate for higher education is foolish, and it may impede progress in developing new programs of education for New Students. A proposal set forth in Chapter X posits that a primary goal in the education of New Students is to help them to assume responsibility for their own learning. Indeed, if we do not pass this responsibility to young adults, then we have not done our job in preparing them for a life which will require a never-ending capacity to learn new things.

UNDERPREDICTION OR OVERACHIEVEMENT?

Recently, a great deal of attention has been given to the fact that some students succeed in college despite the predictions of test scores that say they will not. In this book, we have defined New Students as those who score low on a criterion test that is directly related to school grades. And we have frequently referred to New Students as a group for whom school learning has been an unhappy and frustrating experience. When New Students are considered *as a group*, these descriptions are valid, but there are, of course, individual New Students for whom the tests are inaccurate predictors. Some students who make low test scores do very well in school. Who are these students who do better school work than their test scores predict?

Of the 9,921 students who scored in the lowest third of the CGP sample on the criterion test, 1,308, or 13 percent, had made grades of B or better in high school. College would would

have been preferable to high school grades but they were not available at the time of the analysis.) These 1,308 students are actually misclassified as New Students—because they have apparently done well enough in school to avoid the failure experience described in Chapter IV, and because their grades would probably have made them eligible for admission at many colleges even under meritocratic standards. For some unknown number of this group of students, the test score may have been low because of unusual personal circumstances. But the finding that, as a group, they have some characteristics in common deserves a closer look.

The discrepancy between test scores and achievement as measured by grades can be viewed as underprediction on the part of the test, or it is equally plausible to view it as overachievement on the part of the students. Among the traditional college population, researchers have been most interested in students who score well on tests but don't perform well in class—the underachievers. (See Kornrich, 1965, or Thorndike, 1963, for comprehensive discussions of underachievement.) In the case of New Students, however, there has been much more interest in the phenomenon of test bias, the evidence for which is assumed illustrated by students who do poorly on tests but perform adequately in college. (For discussions of this issue, see Kendrick, 1967-68, or Thomas & Stanley, 1969.) Many factors can influence test scores, and tests are not infallible predictors for individuals. But low-A students who have been successful in school differ in some ways from those for whom test scores proved more accurate. The data in Table 13 represent the responses of *only low-A students* to selected alternatives of some items of the Biographical Inventory of the CGP battery. There were 726 men and 582 women who scored in the bottom third on the test but who reported high school grade averages of B or better. Their responses to the questionnaire items are compared with those of the 6,215 men and 2,398 women who also scored in the lowest third on the test but for whom the tests indicated more accurately the level of their academic achievement; they reported high school averages below B.

TABLE 13

SELECTED RESPONSES OF NEW STUDENTS TO SOME BIOGRAPHICAL INVENTORY ITEMS BY HIGH SCHOOL GRADE AVERAGES, IN PERCENTAGES

Inventory Items	*Males*		*Females*	
	B Average and Better N=726	*Less than B Average N=6215*	*B Average and Better N=582*	*Less than B Average N=2398*
1. Studied more than classmates as high school senior	57	31	70	51
2. Above average scores on Academic Motivation Scale of CGP	66	32	82	53
3. Want help with study techniques	70	76	74	80
4. Plan to work more than 15 hours per week	54	69	38	35
5. Father skilled or unskilled worker	72	65	73	72
6. Know exactly l fe work desired	24	19	39	35
7. Education is mostly or entirely job training	42	43	47	46
8. Above average scores on Vocational Motivation Scale of CGP	52	50	61	57
9. College Parallel Curriculum	51	48	35	33

Source: CGP, 1969.

Because of the large sample size, differences as small as five percent approach statistical significance, but the differences that are educationally significant are the large discrepancies such as those occurring in Items 1 and 2. In the data for both men and women it is immediately apparent that, among students who make low test scores, those who say they study hard make better grades. The Academic Motivation Scale of the CGP separates high and low achievers to an even greater extent, and it looks promising for use

in identifying a group of New Students who are likely to perform beyond expectations based on test scores alone. The Academic Motivation Scale consists of such items as:

> *How many study skills did you learn in high school?*
>
> *Do you think you worked harder on your classroom assignments than most other students in your high school classes?*
>
> *How many of your high school teachers thought you were one of the hardest workers, whether or not you were one of the smartest ones in your class?*
>
> *When you were in high school, how often did you put off or fail to finish uninteresting homework assignments?*

The personality characteristics implied in positive responses to these questions correspond very well with much of the past research on over- and underachievement. Some work has recently been reported (Smith, 1967) that indicates that the accuracy of predicting high school and college grades could be more than doubled by the addition of peer ratings of personality on such characteristics as responsibility, dependability, self-reliance, and persistence (*Behavior Today*, 1970).

Traits such as conscientiousness and perseverance are easily observable. If peers can observe them with some reliability, teachers should be even better able to predict college grades. And a seven-year study recently completed at Brown University and reported in *Education, U. S. A.* (1970) has claimed that ratings made by high school counselors in the student's senior year in high school maintained their validity through graduate school. The experimenters concluded that "Students who have low measured ability but who present evidence of high academic achievement prior to admission—the overachievers--are good students to bet on." Apparently a positive attitude and willingness and motivation to work hard in school will compensate to some extent for low academic aptitude. The fact that overachievers are less desirous of

help with study habits (Item 3, Table 13) than are other low-A students is further evidence of the extent to which they feel they have marshalled their efforts to an effective degree.

Fundamentally, students work hard at studies because there is some kind of reward expected. Rewards to individuals vary all the way from the intrinsic satisfactions of learning for learning's sake, or learning because mastery feels good, to the extrinsic rewards of good grades or praise for hard work. If a student is not rewarded at home or by his peers for school learning and if the usual result of trying is failure, it is hard to see how he would learn motivation for school achievement. More will be said about the achievement syndrome later.

The significant differences between high- and low-performance males on Items 4 and 5 of Table 13 are of considerable interest. Males who did not make especially good grades in high school plan to spend *more* time on jobs during the school year than those who have better reason to think that they could afford the time away from studies. Furthermore, Item 5 shows that the financial need of those planning more extensive work out of school is not the explanatory factor. The usual interpretation of the combination of poor grades with high number of hours of employment is that jobs interfere with studies. But this apparently obvious explanation involves the old questions of cause and effect. Does employment during the school year cause poor grades—or do poor grades cause the student to seek success outside of school? Students who find that frustration and feelings of inferiority are the usual result of competition at academic tasks may well seek their rewards elsewhere. The ability to perform well on the job, the feeling of independence, and the things that money will buy probably have a special appeal for the young person who is making poor grades. There is some research evidence to support this explanation. Astin (1970) reported that disadvantaged college freshmen who made above-average gains in feelings of social self-confidence were more likely than less self-confident disadvantaged students to be attending institutions where many students worked for pay during the school year. Perhaps these data

indicate that work experience does enhance self-esteem and the explanation would seem especially appropriate for New Students, many of whom are unable to find self-confidence in school. If this is the case, it should be possible to make some statements regarding the relationship between hours spent working, extent of financial need and school achievement. Maximum hours of work would take place under conditions of large financial need and low school achievement. Minimum hours of work would occur with low financial need and high grades. And either high financial need and high grades or low financial need and low grades should lead to intermediate loads of outside work. The high-need, high-grades group would be satisfying economic needs, whereas the low-need, low-grades group would be gratifying psychological needs.

At first glance, the statements appear not applicable for women. In fact, there seems to be little relationship between grades and jobs on Items 4 and 5 for women. The above argument, however, is based upon the assumption that a job carries with it certain psychological rewards. This assumption, in all probability, is not nearly so valid for teenage girls as it is for teenage boys for a number of reasons. Whereas a job bespeaks adult status for boys, the more common symbol of adulthood for girls is marriage and a home. Jobs, especially after school and at night, are not easily available for girls, and those that are available require such low-level skills that there is little opportunity to demonstrate competence to peers or, indeed, even to oneself. And lastly, spending money does not carry the status for girls that it does for boys. A girl who has her own car, for example, is viewed quite differently from a boy who has his own car. For all of these reasons, plus the fact that females seem to be more nearly working up to capacity than males at this age, the data seem consistent with the hypothesis.

There is a need to build flexibility into the timing of education. For some students a half-day of school and a half-day of work may be the answer; others may need to keep in touch with a school counselor while they drop out of school for a semester or a year of work; others may need total financial aid so that they can proceed directly through school. To assume that all students

should attain their education at the same rate is an error of serious magnitude. It is important to recognize that total-support financial grants are an unjustice if they demand or suggest that students attend school full-time or make other stipulations that assume that what is good for one student is good for all students. Equality of educational opportunity is not attained by making it possible for everyone to do what the privileged classes have done. It is attained by making it possible for everyone to engage in those learning activities that will maximize the development of his or her talents.

Returning again to the data presented in Table 13, we see that high achievers are a little more likely to have made a career choice (Item 6) than are low achievers. But the differences between low and high achievers are nil on Items 7, 8, and 9. Apparently, academic achievement and the willingness to work hard at it doesn't necessarily mean that high achievers are any more academically oriented than their low-achieving classmates. Low-A students who make good grades are hard workers, but they seem not to be dedicated scholars. Low-ability students who have been successful in school tend to view education in vocational terms just as do other New Students. This observation offers some support for the hypothesis that vocational interests are a positive choice for low-A students rather than the negative nonchoice that they are often assumed to be.

VALUES

Stereotyping people is one way we all have of trying to get a rapid impression of how a person will think and behave. Rightly or wrongly, we expect a "long-haired hippie-type" to think and act differently from a "clean-shaven hard-hat type." Experience proves us right frequently enough to maintain the stereotype. Stereotyping on the basis of dress—over which the individual has some element of control—will probably be more accurate than stereotyping on the basis of something the individual cannot determine. We are quite frequently fooled, for example, if we expect a particular woman to be dependent and interested in children, or if we expect an older

person to be conservative and oriented to the past, or if we expect a black to speak nonstandard English or to be militant. New Students, as defined in this book, tend not to have been successful in traditional school activities and they are predominantly from the homes of blue-collar workers. These two facts alone conjure up some images about how they will think and behave. How correct are these stereotypes? Data from the SCOPE study provide a research picture of some values and personality characteristics of New Students *as a group*. Since we are primarily concerned with the ways in which higher education needs to change in order to serve new groups of students, an accurate picture of the characteristics of the group is a necessity. The descriptions cannot be used, of course, to stereotype individual New Students. Some will fit the general pattern; others will not.

The SCOPE staff built upon the work that the Center for Research and Development in Higher Education of the University of California, Berkeley, had done in studying the attitudes and values of college students. The Omnibus Personality Inventory (Heist & Yonge, 1968) was designed to study the personality characteristics of college students, with special emphasis on academic and intellectual activities. Using the Omnibus Personality Inventory (OPI) as a foundation, the SCOPE staff developed six scales that have special relevance for the study of New Students. I have used the SCOPE data to look at the ways in which the attitudes and values of New Students differ from those of traditional students on the personality scales.

One common stereotype of blue-collar workers is that they tend to be politically conservative and to wish to preserve the authority that has been traditionally exercised by social institutions. As measured by the Autonomy (Au) scale of the OPI, New Students are typical of this stereotype of blue-collar workers. Youth who score high on the Autonomy scale tend to be liberal, nonauthoritarian, tolerant of viewpoints different from their own, and nonjudgmental in their relationships with people. The differences between low-A and high-A students on this scale are dramatic. Over half (58 percent) of the low-As scored in the lowest

third on the scale (authoritarian), with only 13 percent scoring in the top third. Scores for the high-As were just the other way around; 54 percent scored in the top third, with 15 percent scoring low. In some ways, it seems puzzling for the have-nots—and surely low-SES and low-ability students are have-nots—to be endorsing statements on the Autonomy scale that read "People ought to be satisfied with what they have" or "Every wage earner should be required to save a certain part of his salary each month so that he will be able to support himself and his family in later years." But these attitudes are consistent with what used to be referred to as staunch American independence. New Students do tend to agree with statements that make virtues of hard work, determination, and ambition, and they tend not to respect those who think such qualities old-fashioned. Many politically conservative people who deplore the egalitarian spread of higher education would feel much happier if they realized that the New Students now attending egalitarian institutions of higher education actually reflect their own attitudes. For example, 66 percent of the New Students agree that "More than anything else, it is good hard work that makes life worthwhile," while only 42 percent of the traditional students accept the statement as true. New Students tend to respect the traditional institutions of church, school, and government. Past research has been in agreement in finding that the authoritarian values, illustrated by unquestioning acceptance of authority, are consistently related to lower ability, lower educational achievement, and lower socioeconomic status. New Students are very much a product of their blue-collar backgrounds when contrasted with the more liberal and critical traditional students who show an increasing unwillingness to accept the values of the status quo (see Adorno, et al., for a full discussion on authoritarianism.)

The scores of New Students on the OPI scale entitled Theoretical Orientation (TO) are also predictably lower than those of traditional students. The TO scale is intended to measure a preference for logical, analytical, and critical thinking of the type used in scientific work. The items also seem to measure the student's interest in intellectual problem solving as an activity. Many teachers working with both low-A and high-A students could predict the direction of answers to the item reading "I prefer to have a problem

explained to me rather than trying to figure it out myself." Forty percent of the low-As and 19 percent of the high-As agree with the statement. New Students, with their lower self-confidence in intellectual tasks, are more eager for assistance than are high-A students who may enjoy the challenge of intellectual problem solving. Another item on the TO scale has special significance for teaching low-A students. High-A students are twice as likely as low-A students (41 percent to 21 percent) to prefer a "long, complicated problem to several shorter ones."

The items of the TO scale seem relevant to the theory of achievement discussed in Chapter IV. According to that theory, achievement-oriented personalities are interested in the learning process itself. They tend to be internally motivated to figure things out for themselves and to want to accomplish a task because its completion will result in personal satisfaction. Failure-threatened personalities, on the other hand, tend to focus on getting the answer so that they *look* successful. They prefer having things explained to them because it seems a more certain path to the correct answer, and frequent signposts along the way bolster self-confidence and assure them that they are on the correct path. Their tendency to want to avoid risky situations that might result in failure is further illustrated by their endorsement of the statement "I want to know that something will really work before I am willing to take a chance on it." Fifty-eight percent of the low-As and 37 percent of the high-As agreed. The Theoretical Orientation scale, which seems to probe the general dimension of intellectual self-confidence, shows 47 percent of the New Students and 22 percent of the traditional students scoring in the lowest third among the high school seniors in the SCOPE sample.

The OPI scale entitled Thinking Introversion (TI), modified by SCOPE, shows less difference between traditional students and New Students than might be predicted, given the amount of attention that has been devoted to the presumably practical, physical action orientation of New Students. High scores on TI indicate that the student has said he enjoys literature and the arts and finds pleasure in working with ideas. Low scorers tend

to like overt action and to evaluate ideas in terms of practical applications. While a larger percentage of low-A students than high-A students score in the lower third on TI (41 percent to 31 percent) the difference is no greater than that between males and females (44 percent to 32 percent). Three of the nine items on the TI scale are related to music and the preference for popular or classical music, and none of the items seem to test the preferences that we might predict would have special relevance for us in our study of New Students. Some research needs to be done with low-A college youth on the preference for the physical action-oriented mode of learning that is said to be useful with younger children (Riessman, 1962). Another type of item that appears related to the purpose of the TI scale and that would be helpful in designing learning experiences for New Students is one assessing the preference for practical, pragmatic tasks that emphasize the *uses* of ideas instead of the *manipulation* of ideas.

Two other scales that have been developed by the SCOPE staff are of special interest in describing New Students. Considerable attention has been given in the literature to the presumed inability of disadvantaged students to delay gratification or to work for a reward that is not immediate. The Deferment of Satisfaction scale (DS) does differentiate between low-A and high-A students. Thirty-eight percent of the low-A students scored in the lowest third on DS, compared to only 16 percent of the high-A students. While girls generally indicated more willingness than boys to plan for future satisfaction, the differences were especially apparent in the low-A group. Whereas nearly half (48 percent) of the low-A males scored in the lowest third on the DS scale, less than one-third (31 percent) of the low-A women did.

The apparent desire of New Students for a close connection between effort and reward has implications for teaching and learning. One of the most eagerly accepted innovations in community colleges is the de-emphasis on grades. About three out of ten (27 percent) of the community colleges say they have adopted some variant of nonpunitive grading (Appendix C). Certainly this reform is consistent with the recommendations that would arise from

the analysis of the failure experience presented in Chapter IV. But there are other considerations. Grades are more important to New Students than to traditional students, and grades are concrete rewards for effort expended. Most of the colleges where the effects of a de-emphasis on grades have been studied carefully are elite colleges working with a very different type of student than those of concern here. After a comprehensive review of the literature, Warren (1971) concluded:

> The motivating effect of grades is complex and not well understood. Some students value the formal affirmation of accomplishment that grades represent and work to get it. For others, the almost continual self-assessment derived from cues provided by teachers, other students and regular course activities is sufficient [p.14].

It is not yet clear what effect the practice of grading has on the learning of New Students. It does seem clear that some form of evaluative feedback should be provided. Perhaps the best solution would be to find concrete symbols of individual accomplishment that are noncompetitive and immediate. Those concerned with criterion-referenced testing are pursuing this line of reasoning. Further attention is given to the subject within the context of the proposals suggested in Chapter X.

The Active-Passive scale (AP) used in the SCOPE study consists of items that attempt to distinguish between people who actively pursue what they want versus those who passively accept what they get. Low-As tend to be passive, with 46 percent of them scoring in the lowest third compared with 25 percent of the high-As. Of some interest is the finding that very few people—low-A or high-A—admit that when they can't do something easily they usually give up. Eighty percent of the low-As and 84 percent of the high-As claim that they usually keep trying. Large differences between low-As and high-As occur in a question asking how venturesome they would be in seeking college admission. Girls are more willing to risk being turned down by the college of their choice than boys; but high-A students (82 percent of the girls and 75 percent of the boys) are much more likely than low-A students (54 percent of

the girls and 47 percent of the boys) to say that they would apply to a college they really wanted to attend even if their chances for admission were uncertain. In this particular case, however, it is important to remember that lowest-third students don't have a very good chance of getting into any college that is selective. Their fear of being turned down by a college where their chances for admission are uncertain is based on reality.

Finally, an OPI scale that has had great usefulness with traditional college students is a complex, multifaceted scale called Intellectual Disposition (ID). In the SCOPE study it consists of a combination of items from the Au, TI, and TO scales. Intellectual Disposition classifies respondents along a continuum representing intellectual and scholarly interests. Heist and Yonge (1968) describe it as a measure of the "potential for behaving intellectually." Students who score high on ID would find their greatest satisfaction at prestige institutions with a press for scholarly excellence. High ID scores would be found at the epitome of traditional college models. We would predict that New Students would score significantly lower on ID than traditional students. And they do. Fifty-five percent of the low-A students score in the lowest third on ID, compared with only 16 percent of the high-A students. When the scores in the top third of ID are examined, 59 percent of the traditional students score in the top third, compared with only 16 percent of the New Students.

The two scales that distinguish New Students from traditional students most sharply are Autonomy (independence of thought and judgment and general nonauthoritarian attitudes) and Intellectual Disposition (interest in intellectual, scholarly activities). In the rough analyses performed here, the simple 15-item Autonomy scale does as good a job of differentiating between the values of traditional students and New Students as does the longer 31-item Intellectual Disposition scale. Interestingly enough, the Autonomy scale is the only one of the six scales described here that has *no* item on it related directly to school work or to study habits. It is strictly a scale of cultural attitudes, and on it New Students appear to hold the attitudes around which the town-gown polarization has

developed, with New Students espousing the attitudes of the community as opposed to those of faculty and students on traditional campuses. Some of the attitudes which traditional students have vociferously disavowed are held by substantial numbers of New Students. Examples of some of these items from the Au scale are:

> *I am in favor of strict enforcement of laws no matter what.*
>
> *Communism is the most hateful thing in the world today.*
>
> *It is never right to disobey the government.*

Research is virtually unanimous in reporting that the greatest attitude changes to take place among students attending college occur along the dimension of authoritarianism. If this becomes the case for New Students, then the country may experience an "education gap" between New Students and their relatively poorly educated parents that is much greater than the much discussed "generation gap" (Cross, 1967; Fields, 1971).

Data presented in this chapter indicate that New Students have a quite different orientation to school learning tasks than do traditional students. Given the considerable differences in the nature of their past learning experiences—at home and in school—these research results correspond to the observations of many teachers who have had years of experience working with New Students. But it is surprising how often these differences are ignored. There is a distressing tendency to think that educational reform is educational reform, and that what is good for some students is good for all students. Some innovative reformers in community colleges seem to recommend the same kinds of reforms as those recommended for senior colleges. Reformers—speaking generally—are people who are dissatisfied with the status quo and wish to change it; as such, they share certain values. But the things that need changing to make traditional education more appropriate for New Students are not necessarily those advocated by the progressive, forward-looking, elite

colleges that frequently serve as the models for educational change. Community colleges and vocational and technical institutes will need to develop their own breed of educational reformers. These will be people who know and understand and accept the attitudes and values of New Students. They will be teachers and administrators who recognize that the learning experiences of New Students have been different qualitatively, not quantitatively, from those of traditional students. They will be willing to entertain the very serious suggestion that both the methods and the content of traditional education must undergo substantial change if we are to educate New Students to their own potential instead of to a carbon copy of traditional students. It is not enough to provide programs of access for New Students. As a matter of fact, it may be quite damaging to continue the priorities of access over and above those of the development of educational programs designed specifically to meet the learning needs and styles of New Students.

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6

Interests of new students

An analysis of how people spend their time reveals something about interests, but it also tells something about capabilities. The association between interests and abilities is circular and constantly reinforcing. We are likely to engage in those activities which we find interesting; we are likely to find interesting those activities which we do well; and we are likely to do well in those activities in which we gain practice. For example, young people who read well in school tend also to be interested in reading books out of school. Such practice serves to enhance reading ability, which in turn tends to heighten reading interest.

Quite predictably, low-A students tend to spend leisure time in nonacademic pursuits, while high-A students tend to spend more time in activities that are similar to those taught in school. The indifference of low-ability students to reading is illustrated by data from the ETS Growth Study which asked a number of questions about how students spend their time. A sample of these items has been selected for intensive analysis by ability grouping for this study. High-A students are much more likely to read almost anything suggested in the questionnaire than are low-A students. It is a well-known fact that high-A students tend to read higher-level materials calling for greater reading sophistication than low-A students, but the data also show that they simply read more of all types of material—including the comics and sports sections of

the newspaper, which can hardly be said to require high levels of reading skills. Of the 15 questions analyzed that are related to various kinds and levels of reading, only three have failed to show large and significant differences in favor of high-A students' greater reading activity ouside of school hours. Books telling how to repair, build, or do things and books on hot rods, mechanics, and science fiction show no differences; low-A boys are as likely to read these books as are high-A boys. As a matter of fact, a fairly substantial number of low-A boys (20 percent) say they read such materials regularly. Reading, with the intent of understanding something well enough to make something or repair something appears to be a skill of no small value and one that certainly might be utilized more commonly in reading courses in school. Comic books are read regularly by a small minority of students, but low-A students are somewhat more likely to read them than are middle- or high-A youth. Quite the reverse is true, however, when it comes to the comic section of the newspaper; 70 percent of the high-A students read it regularly, compared with 47 percent for low-A students. On all of the more general types of reading—such as *Sports Illustrated, Reader's Digest, Life,* or *Newsweek*—high-A students are roughly twice as likely as low-A students to read the publication regularly. Much of the difference, of course, is accounted for by the greater accessibility of such publications in the homes of students from the higher socioeconomic levels. Research shows clearly the relationship between accessibility of reading material, amount of time spent reading, and level of reading achievement. Research doesn't answer the age-old question of whether the greater reading activity of high-A students is cause or effect. Does increased reading activity lead to high-A status or does high-A status lead to greater interest in reading? Any explanation that picks one answer over the other is probably an oversimplification, and in any case, what is important is that by age 18, when we are trying to interest low-A youth in reading, they have learned to prefer other activities. Our educational task seems to be either to increase the interest of New Students in reading or to use other media through which they will learn. To date, we have concentrated largely on trying to increase their interest—or at least their practice—in reading.

The Growth Study data offers an opportunity to compare practice in the use of various media by low-A students and high-A students. There are three major ways of gaining information about news events—radio or television, newspapers, and news magazines. Table 14 shows the percentage electing each method when asked at various points in the questionnaire how they spend their leisure time.

TABLE 14

PERCENTAGE OF ELEVENTH GRADERS RECEIVING INFORMATION ABOUT NEWS EVENTS THROUGH VARIOUS MEDIA, BY ABILITY

	Academic Aptitude		
	Low-A	*High-A*	*Percentage Difference*
News on radio or television (over an hour per week)	29	37	7
Newspaper (read regularly)	28	46	18
News, digest, and general magazines (read regularly)	27	61	34

Source: ETS Growth Study data, 1965.

The first question that occurs to us in looking at the figures in Table 14 is: How much of the difference is a reflection of the young person's interest and how much is a statement of what is available in the home? Unfortunately, the data that could shed light on that question are not available for this sample. Data from the Project TALENT sample, however, show less difference than might be expected between the access of low-As and high-As to news magazines; 54 percent of the low-As and 70 percent of the high-As say that a general news magazine is available in their homes.

The data of Table 14 permit two observations about differences in learning preferences of New Students and traditional students. First, high-A students get much more practice than low-As in reading outside of school, and this fact alone would be enough to perpetuate the cycle in which interest leads to practice which leads to increased skill which, in turn, operates to raise interest levels.

Second, there is not much difference between low-As and high-As in the amount of time spent learning about news events via the media of radio or television. The out-of-school practice in the use of gaining knowledge through these media is roughly equal for low-A and high-A youth.

Although the data in Table 14 leave a number of questions unanswered—such as how much was learned about the news through the various media—the argument is still strong for a much broader use of multimedia in education. The television show *Sesame Street* has been very successful in promoting growth in learning for disadvantaged young children (Ball & Bogatz, 1970). And there are several reasons for suggesting much greater use of new media in the education of older youth:

- The use of television as a learning tool is novel in the classroom and is not loaded with past experiences of failure for New Students, as is the printed page.

- According to the data presented in Table 14, there are not great differences between low-A and high-A students in the amount of learning practice gained outside the classroom when television or radio are used to convey information. In reading tasks, low-A students always have the handicap. It would be desirable—for both low-As and high-As—if some learning tasks deliberately tried to avoid built-in disadvantage for low-A students.

- It is quite possible that there are real individual differences in learning styles, and if all students are to have equal learning opportunity, then it is essential to offer a wide range of teaching tools.

By the time young people reach adolescence, there are marked differences in interests between low-A and high-A youth. Maier and Anderson (1964) used Growth Study data to illustrate orientations of high school students toward either adolescent or adult cultures. The adolescent culture, they hypothesized, made low contributions to cognitive development, whereas the adult culture

contributed to the growth of intellectual functioning. The adolescent culture was defined by activities that required low levels of cognitive skills and which also stressed physical-social content as opposed to intellectual-aesthetic interests. The low-skill dimension, which included such activities as riding around in cars and watching cartoons on television, has special relevance in regard to many of the characteristics associated with New Students. "The behaviors with low skill requirements," according to Maier and Anderson, "impose few specific demands on the participant, do not provide much feedback to use in guiding action, invite passivity, and provide immediate gratification." Activities of this sort, they hypothesized, would not be conducive to cognitive growth. The words of their description have a familiar ring. Data presented in Chapter V showed the passive learning stance and the desire for immediate gratification evidenced by New Students in their response to personality questionnaires. According to Maier and Anderson, these attitudes would be expected from young people participating largely in the adolescent culture.

Theorists subscribing to an interactionist view of cognitive development reject the notion of the fixed or innate IQ, maintaining that cognitive abilities are developed when readiness to learn and appropriate learning experiences are brought together (Hunt, 1969; Piaget, 1947). The lack of cognitive experiences in the low-A youngsters' environments, they maintain, serves to impede intellectual development. Therefore, adolescents spending large amounts of time in activities requiring low cognitive effort will lag behind classmates with greater cognitive experience.

There is considerable research support for the interactionist view of cognitive development, and it is apparent in the data that low-A youth tend to spend their spare time in activities which have low potential for intellectual development, whereas high-A youth gravitate toward intellectually stimulating activities out of school as well as in school. The greatest differences between the interests of low-A and high-A youth in the Growth Study sample are on a cognitive-noncognitive dimension. Low-A youth are almost twice as likely as high-A youth to spend more than one hour per

week watching teenage music and dancing programs (45 percent to 24 percent). They are also much more likely to date once a week or more often (32 percent for low-As to 17 percent for high-As). As predicted by the interaction hypothesis, high-A students spend considerably more time than low-A students in cognitively oriented activities. High-As were more than twice as likely as low-As to spend two hours a week or more practicing, arranging, or composing music (27 percent to 13 percent) and to have read more than two books during the year about history, current events, or biography (32 percent to 16 percent).

Some activities that might be hypothesized to have low potential for cognitive development did not differentiate at all between low-A and high-A youth. "Hanging around, just loafing, talking, or snacking with friends" seems to be a universal teenage activity, with 41 percent of the high-As and 41 percent of the low-As spending more than two hours a week at it. All types of athletic activities, from attending athletic events once a week or more often (44 percent for both high-As and low-As) to spending two hours a week or more practicing sports (30 percent for both groups) appear common to all young people regardless of academic ability.

In summary, some noncognitive activities are part of the adolescent subculture in which all teenagers have an interest. But data showing the predominant interest of low-A youth in noncognitive activities are abundant. Generally speaking, when high school seniors and college freshmen are asked about their preferences for various out-of-school activities, students who score high on measures of academic achievement are prone to show high interest in intellectually challenging activities and occupations. Students who score low on academic aptitude and achievement measures are more likely to indicate interest in activities calling largely for noncognitive skills.

The effect of poor academic skill development on 18-year-old youth are quite apparent in the students' perceptions of themselves and their development. The research shows clear differences by ability groupings in the things that students say they

do well. High school seniors in the SCOPE study were offered a list of nine activities and asked to indicate the *one* which they felt they did best. The largest percentage of high-A girls chose *read* (26 percent); for high-A boys, the first choice was *work with numbers and mathematics* (27 percent). The ability to read well was not a likely choice for low-A girls (17 percent), nor indeed even for high-A boys (14 percent). Reading, it appears, is subject to wide variations in preference—one more reason why we would be doing the majority of students a favor if we decreased the heavy emphasis on reading in school learning situations and used alternative methods that had a greater potential for securing the interest of low-A youth and of young males.

The clear activity preference for low-A girls in the SCOPE sample was *sewing and cooking* (28 percent), while low-A boys chose *working with tools* (28 percent) and *sports* (27 percent). The middle-As fell, as usual, in between; 21 percent of the girls chose *cooking and sewing,* followed closely by the 20 percent who selected *reading.* Middle-A boys chose *sports* (29 percent), followed by *working with tools* (22 percent).

At the college level, the story is the same. The questionnaire used in the annual survey of college freshmen conducted by the American Council on Education (Panos, Astin, & Creager, 1967) asked students to indicate which of 30 activities they could do well. The difference between two-year college students and university students is roughly comparable to the distinction we have been making between New Students and traditional students, since only 37 percent of the two-year students but 69 percent of the university students had high school grade averages of B or better. A larger proportion of university students than two-year college students said they could perform 25 of the 30 activities well, indicating the greater self-confidence of high-ability students. But there were some activities where greater proportions of two-year college students rated their achievement high. Two-year college women, for example, were more likely than university freshmen women to say that they could do the following things well: type 40 words per minute, use a sewing machine, mix a martini, set a

table for a formal party, bake a cake from scratch, and do at least 15 pushups. For men, the pattern is similar but not as clear because of the nature of the activities on the list.

Project TALENT obtained the same pattern of nonacademic interests on the part of low-A youth by asking about hobbies. Low-A males were over three times as likely as high-A males (28 percent to eight percent) to state that they engage in woodworking or metalworking activities very often, and 44 percent of the low-As, compared with 28 percent of the high-As, profess to a hobby of repairing cars. Although the figures are not quite as dramatic for girls, there are also significant differences in preferences for the hobbies of cooking and sewing, with roughly a ten percent difference in favor of the low-A girls.

It makes no difference how you measure it—by sophisticated interest scales, by leisure-time activities, by hobby preference, by ability self-evaluations—one of the prominent characteristics of New Students is that they express their greatest interest in activities that are not ordinarily stressed in the schools. If New Students seek recognition for skills in which they consider themselves most competent, they are likely to have to go outside the formal school system to find it. While high-As are using their strongest abilities in school, low-As must demonstrate one of their weaker abilities. No wonder the academic performance gap widens as students proceed through school (Coleman, 1964).

Although the suggestion will seem heretical to academic man, typing contests, cake tastings, and style shows are not, it seems to me, inappropriate ways for elementary and secondary educational institutions to recognize outstanding achievement. And yet, in our quite sincere drive to raise the quality of the schools, we have systematically frowned on nonacademic activities, mistakenly equating them with nonlearning activities.

The primarily nonacademic interests of New Students can be explained negatively as a flight *from* academic activities—or they can be viewed positively as an attraction *to* other kinds of interests.

For example, a girl who gets Ds in reading in school is not likely to say that reading is a special interest. She is more likely to state that she is interested in activities that are much less subject to comparative evaluation and reporting. From this negative perspective, the interests of New Students are nonacademic because the message has been clear that they are not very good at academic tasks as those tasks have been defined in the classroom. On the other hand, sewing may be a positive interest that has resulted in active cultivation of high-level skills, such as working with color, form, and texture, dealing with problems of spacial perception and pattern matching, following complex instructions and diagrams—to say nothing of developing a high degree of skill in eye-hand coordination.

Unfortunately, our society has unthinkingly assigned negative values to nonacademic interests. Vocational education, for example, is often perceived as appropriate for those who cannot achieve at academic tasks. Educators are as guilty—if not more so—as anyone else in perpetuating a value hierarchy of talents in which academic ability ranks at the top. Most people who do research and write books, and indeed most highly educated people, do value intellectual ability over all others. They do believe that it is better to be interested in ideas than in practical consequences. It represents a higher plane of interest to read a book than to fix a car. The young person who is creative is thought superior to the one who is efficient. Until quite recently, the intellectual skills required for "pure" or "basic" research were honored over the political and social skills of applying knowledge for social gains. Only as a product of some of the federal poverty programs have we started to realize that the political insight of the ghetto dweller may be more valuable to society than some of the research skills of the academic researcher. Unfortunately, the intellectual community has frequently been guilty of pressuring for its own system of values and interests. Rather than according excellence in sports or music performance recognition for the quality of learning and mastery displayed, many educators express disdain for such activities which may represent the only opportunity low-A youth have for recognition of high levels of achievement.

The practical realities of life in the United States in the twentieth century require that all citizens learn the basic skills demanded for full opportunity and participation in the rewards of an advanced society. Recognizing the necessity for the basic development of educational skills in all young people, demanding equal opportunity for all persons to sample the satisfaction of intellectual challenge, is different from emphasizing intellectualism at the expense of other areas of achievement. It may be argued that some kinds of vocational education, already suffering from low status, have been dealt another severe blow by some ethnic minorities through their characterization of vocational education as low status. While their position demanding full participation in first-rate university education is appropriate—and long past due for those who show the desire and potential for academic pursuits—it may be extremely harmful for both minority and majority students who would prefer honing another ability to a fine edge. As long as we perpetuate a unidimensional value system comparisons will be made in terms of higher and lower, better and poorer, above average and below average. In other words, there will always be a "lowest third" in any system that demands conformity to a single brand of excellence—even if the brand name is intellectualism. Expanding the recognition of other skills that are realistically valuable to society would offer each individual the option of developing his own best pattern of abilities.

Education might well adopt a goal of helping every youngster to reach a high level of achievement in some worthwhile endeavor. And this means demanding high achievement of everyone while permitting individual variation in the choice of the area. Our present academic emphases tend to specify the area but permit individual variation in levels of achievement. Thus, some people who do not meet high levels of academic achievement are denied the profoundly gratifying experience of mastering something—of knowing they have developed an interest and an ability to a high level of accomplishment. There is a need to shift educational design from its concern over specifying the *content* of education to specifying the *level of mastery* that represents learning and achievement. (See Chapter X for further discussion of this subject.)

POSITIVE INTERESTS OF NEW STUDENTS

Data from the new Comparative Guidance and Placement Program (CGP) of the College Entrance Examination Board show strong positive interest profiles for New Students. The first year of experience with these tests revealed that students enrolled in the various curricula had distinctive profiles of interests that transcended the type of institution they were attending.

In order to gain a further understanding of the positive interests and motivations of some subgroups of New Students, I have selected for special attention three subgroups representing distinctive interest profiles on the Comparative Interest Index of the CGP. The selection of particular interest subgroups is based upon the size of the sample available. There are three interest patterns exhibited by 200 or more students. Subgroup A consists of 225 women who scored in the lowest third on the criterion test of academic ability, but who made above-average scores on two tests measuring interests in business and in secretarial tasks. Subgroup B consists of 256 low-A women with above-average scores on the two scales measuring interest in health and biology. Subgroup C consists of 212 low-A women who scored high on interest in social sciences, which is the only common element in the rather nondistinctive profile of an independent sample of 1967 freshmen who enrolled in college-parallel liberal arts curricula.

In looking carefully at these interest data we are focusing on the strength of low-A women, not upon their weaknesses. The three subgroups share low-A status; they all meet the criterion for classification as New Students to higher education. But they are women who score *above* the average of all two-year college women in certain curriculum-related interests. Table 15 shows the percentage of each subgroup giving various responses to selected items of the Biographical Inventory of the CGP.

TABLE 15

RESPONSES TO BIOGRAPHICAL INVENTORY ITEMS BY LOW-A WOMEN IN THREE INTEREST SUBGROUPS, IN PERCENTAGES

	Interest Subgroups			*All Women*
	Business	*Health*	*Liberal Arts*	
Kind of life preferred				
Academic (teaching, research, etc.)	8	13	68	26
Business (management, marketing, etc.)	62	2	3	12
Professional (doctor, lawyer, etc.)	1	50	4	11
Home and family	12	11	11	19
Undecided	8	8	6	14
Other	8	17	8	17
Junior college curriculum				
College-parallel	15	9	92	51
Terminal two-year	52	58	6	32
Terminal one-and-one-half year	32	31	0	7
Other	1	2	2	10
Subject most liked in high school				
English	24	18	28	27
Mathematics	10	11	5	9
Physical Education	13	8	10	12
Sciences	4	35	5	11
Shop or commercial	26	2	2	6
Social sciences	11	13	29	14
Other	11	13	21	21

TABLE 15 (continued)

	Interest Subgroups			*All Women*
	Business	*Health*	*Liberal Arts*	
Time spent thinking about future career				
Much more than others	15	28	15	11
Somewhat more	70	60	67	66
Somewhat or much less	16	12	18	23
Would like counseling on educational and vocational plans and opportunities	73	75	79	69
Know exactly work desired after education	31	65	38	28
Purpose of education—mostly or entirely job training	60	54	24	42
Ethnic identity				
Caucasian	35	34	55	74
Black American	54	56	38	19
Other	11	9	7	7

Source: CGP data, 1969.

Immediately apparent is the consistency with which strong interest profiles separate low-A junior college women with different educational and career interests. The subgroups are formed on the basis of interest tests alone, not on curricular enrollments; but even as undifferentiated as the liberal arts interest profile is, 92 percent of the low-A women with very high interests in the social sciences are enrolled in college-parallel liberal arts curricula. Some typical items for the Social Science Scale are: "To take part in discussions of current events both in school and at home"; "To study and discuss what our government should do about foreign affairs"; and "To find out when certain historic events took place, when certain famous people lived, etc." Table 15 indicates that low-A women who like to do such things also tend to prefer an academic life, are enrolled in a college-parallel liberal arts curriculum like English

and social studies in high school, and are not inclined to view their education as primarily vocational. The item on ethnic identity indicates that low-A black women are somewhat more likely than Caucasians to express interests related to careers in business and health. The relatively large percentages of blacks in all three interest subgroups, compared with the percentage in the population of community college women, reflects the large number of minority students scoring in the lowest third on the traditional measure of academic aptitude. The ethnic distribution in only the low-A female group is 43 percent Caucasian, 44 percent black, and 13 percent other.

New Students scoring high on CGP interest tests appear quite positively attracted to their field of study. Low-A women interested in activities associated with health (liking to maintain charts of temperatures and blood pressure, to make a sick person comfortable, etc.) and with biology (liking to experiment with plants, test soil conditions, etc.) present an especially strong picture of career motivation. Despite a rather poor academic background, they are more likely than the average community college woman to have enjoyed science courses in high school—and to have rejected the more common female interest in English. They are much more likely than the average community college woman to know exactly what line of work they want to enter and to spend time thinking about their future careers.

Women with strong interests in business and secretarial activities on the Comparative Interest Index are likely to view education as job preparation, but they are not as sharply focused toward a specific career as are the women interested in the health fields. Compared with women in general, however, business-oriented women, like their health-oriented classmates, present a picture of positive interests in school work that capitalizes on these interests.

The Student Satisfaction Questionnaire of the CGP shows how well satisfied some of these New Students are with their field of study in the community colleges; it asks two-year college students to indicate their reactions to their educations. Some 27,000 community college students responded to the questionnaire in the

fall of 1968. The tabulation of these responses (CGP, 1968) includes both males and females, but the percentage of responses to selected items, as presented in Table 16, are for the same fields of study as those of Table 15. As a group, students enrolled in the health curricula (mostly women) stand out for their exhuberant satisfaction with their choice.

TABLE 16

RESPONSES TO STUDENT SATISFACTION QUESTIONNAIRE BY THREE CURRICULAR SUBGROUPS, IN PERCENTAGES (MALE AND FEMALE)

	Business	*Health*	*Liberal Arts*	*All Students*
Plan to stay in program	47-56*	67-74*	39	43
Program will prepare me for job I want	46-61	67	34	40
Looking forward to later courses in the field	39-45	60-31	48	45
Courses in program relate to future plan	39-57	58	27	34
Have definitely decided what to major in	43	69-51	31	38
Don't need better training than getting	23-43	44-53	11	16
Have definite plans for vocation	29-35	59-50	30	30
Chosen vocation will afford good income	42-51	55-29	33	35
Have not changed mind several times about vocation	35-40	63	33	36
Read about vocation outside courses	12	26	16	15
Will like job	39-52	67	26	33
Courses are right level of difficulty	29-35	40	29	28
Taking courses wanted to take	34-51	45-66	33	33
Find texts hard to read	24-44	30-54	24	24

*Where percentages differ significantly, the first listed refers to students enrolled in two-year programs and the second to those in one-year to year-and-a-half programs.

Source: CGP, Phase II, 1968.

In general, students in the health curricula are more certain of their direction and better satisfied with their training than any other curricular group. Business students in the nondegree curricula are more highly motivated and better satisfied than those in the two-year degree programs, and students in the college-parallel liberal arts curricula present a general picture of preparing for further schooling rather than preparing for vocations. But it is also clear that many liberal arts students have not yet decided what vocation they wish to pursue. Whether young people who are uncertain of their career interests are attracted to liberal arts courses or whether the broader boundaries and transfer emphasis of liberal arts curricula make it easier to delay career decisions is an open question. Perhaps both influences operate to give liberal arts students vaguer goals.

From these specific observations, we can posit a general conclusion that would predict that students who have sharply focused career interests are likely to be better satisfied with their career training than students who are less certain about their vocational interests. For example, when students were asked to respond to an item that read "I need better training than I get in my program," the percentages disagreeing—i.e., indicating that their training was adequate—appeared in the following order: vocational health fields (nondegree) 53 percent, technical health fields (degree) 44 percent, vocational business fields (nondegree) 43 percent, degree business programs 23 percent, and liberal arts transfer programs 11 percent.

The important message of the data on vocational interests lies in the rather clear patterns of interests that are revealed and in the positive motivations and satisfactions of young people in vocational curricula. There is nothing in the data of health interest subgroups, for example, that suggests that these are students who could not succeed in traditional academic courses and therefore took vocational courses as second best. To the contrary, the data show clear positive attractions to the health curricula.

Interests, like other student characteristics, differentiate New Students from traditional students not so much in amount as in kind. The prestige bias against the interests of New Students is

illustrated by the fact that we must use a negative word—nonacademic—to describe those interests. There is clear evidence that New Students are not as interested in academic pursuits as are traditional students. This lack of interest, accompanied as it is by lack of practice amd familiarity with academic subject matter, is most assuredly a handicap to New Students in school. According to interactionist theorists, the adherence of New Students to the adolescent culture is an obstacle to maximum cognitive development. It would be difficult and undesirable to argue that schools do not have a responsibility to expose New Students to academic subjects in ways that stimulate interest.

On the other hand, education can be faulted for not capitalizing on the strong positive interests shown by New Students. Nonacademic interests are not necessarily noncognitive, nor are opportunities for learning limited to conventional classroom materials. There are cognitive and creative challenges to be found in constructing things from metal, wood, and dress materials. Traditional students as well as New Students could benefit from the stimulation and cultivation of abilities used in such activities—e.g., spacial perception, eye-hand coordinarion, and the reading and following of directions. Likewise, the use of a variety of ways of conveying information—television, audio-visual aids, drama, etc.—would be advantageous to all students. The traditional academic curriculum has catered to the strengths of traditional students and has forced New Students to develop their special strengths out of the classroom. Variety in method and in content is long overdue in education at all levels.

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7

New students look at education

Generally speaking, schools have done a better job of educating youth for continuing in the school system than they have of preparing them to lead useful and productive lives. Quite simply, we concentrate on doing what we know how to do. We know little about the kinds of skills and information needed for vocational and personal success. We know much more about what is needed for school success. We know fairly well, for example, what background of learning a high school student needs for college; we know what knowledge should be acquired from English 100 in order to succeed in English 101. We can even predict with a fair degree of accuracy which groups of students have absorbed the right kind and amount of information from one level of education to succeed at the next level. Perhaps it is to be expected, then, that educators will direct their major attention to the preparation of students for the next level of education. High schools devote major energies to the preparation of students for college; colleges direct their attention to the preparation of graduate students; graduate departments are most interested in those who are preparing to become scholars in the discipline. In other words, students who get the most attention in the educational hierarchy are those who are preparing to continue. Students planning to terminate formal schooling at the level in which they are participating—e.g., a high school student not college bound or a junior college student not transferring to a four-year institution—are often considered peripheral rather than central to the purpose of the educational program.

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STUDENT REACTIONS TO SECONDARY EDUCATION

Students seem to recognize the centrality given to their academic preparation for further schooling as they evaluate their educational experiences. Students in the SCOPE sample were most likely to rate their high school courses as "very useful" in preparing them for college; 54 percent did so. They were somewhat less likely to rate high school courses as useful for job preparation (38 percent) or as preparation for the assumption of adult responsibilities (38 percent). This emphasis means that high-A students, 80 percent of whom were headed for college, were very likely to see their high school training as relevant to their immediate futures; three-fourths of them rated high school courses very useful for college preparation. Only 47 percent of the low-A students felt equally enthusiastic about high school courses as preparation for jobs. Junior college students expressed the same kinds of feelings. Those who later transferred to four-year colleges were more likely to rate their junior college experiences as helpful or extremely helpful (97 percent) than were those (79 percent) who went directly to work (Florida Community Junior College Interinstitutional Research Council, 1969).

When high school seniors participating in the SCOPE survey were asked what changes they would make if they were running the school, it was clear that most students would make changes; only 12 percent were so pleased that they would "keep school just as it is." Low-A students, however, would move in the direction of adding more practical courses to help students get jobs (71 percent, compared to 53 percent for the high-A group), whereas high-A students advocate improvements such as adding more books to the library (74 percent, compared to 58 percent for low-A students). There were no major differences between aptitude groups on such generally good ideas as providing more time to talk with counselors about school and vocations (69 percent) having more class discussions instead of lectures (66 percent), or allowing students greater freedom in choosing courses (50 percent).

Although it is apparent that New Students are not as likely as traditional students to perceive the schools as directly relevant

to their interests, they seem to harbor no resentment against the most visible representatives of the system—the teachers. Low-A students are almost as likely as high-A students to feel that their teachers usually understand them (59 percent for low-A to 63 percent for high-A) and that their teachers treat them fairly (85 percent to 93 percent). And almost three-quarters of the students—low-A, middle-A, or high-A—feel that the things they "have to study in school are important."

The *differences* between the attitudes of New Students and traditional students toward school appear in their responses to items that are related to the system itself or perhaps to the emphasis on academic competition. For example, low-A students are much more likely than high-A students to say that they would do better work in school if their teachers didn't go so fast (28 percent to nine percent). They are also more likely to feel "nervous, tense, or shy" in class (38 percent to 21 percent).

There is nothing surprising in the findings that students who are successful in the school situation tend to stay in it, whereas those who are less successful and more uncomfortable drop out with varying degrees of passivity or animosity. The situation is not unlike that described by the Peter Principle of business (Peter & Hull, 1969) which states: "In a hierarchy, every employee tends to rise to his level of incompetence." As applied to education, we might state that each student will go as far in a heirarchical unidimensional educational system as his ability permits; when he (or the powers that be) perceives failure as the next step, he will drop (or be forced) out of the system. It is important to note that this principle works only in a hierarchy. When multidimensional pathways to personal development exist, then the hierarchy of education, in which each level is primarily preparation for the next, breaks down; each student may then pursue the development of his best abilities without reaching that point on the unidimensional scale where he feels he can go no further. In all probability, the student who leaves school because he has failed, or perceives that the next level will bring failure, will be the adult who reacts with fear and rigidity to possible technological unemployment. Retraining and the

willingness to try something new will not come easily to the individual who has gone "as far as he can with learning."

One of the major dangers of imposing an egalitarian open-door admissions policy upon a meritocratic curriculum is that it may literally force students to remain for longer and longer periods of time in a hostile and failure-threatening situation. Theoretically, it is possible for a student who has quit learning to continue his pursuit of educational credentials. In fact, when community college personnel were asked to rank the importance of seven possible obstacles to learning for New Students, respondents gave "Lack of effort; has quit trying" top priority (Appendix C). Many of these students who have quit trying are hoping for credentials rather than for learning.

The responsibility for the remediation of past learning difficulties is generally placed upon the highest open-access level of education—at present the two-year colleges. Much as the grade schools have passed their illiterates along to the high schools and the high schools to the junior colleges, it may become possible eventually for the community colleges to let the senior colleges worry about remedial education. Fundamentally, standards are determined and maintained by selective institutions—not by open-door colleges. As present, for example, four-year colleges have considerable influence over the curriculum of two-year colleges, whereas community colleges have very little control over the offerings or standards of the high schools. Having said they will take any high school graduate, public community colleges are obligated to provide for any perceived deficiencies in the educational skills of their entering students themselves. The fact that 92 percent of the two-year colleges were offering remedial courses in the spring of 1970 (see Appendix C) is an example of the problems associated with what appears to be egalitarian education but what may in fact be only egalitarian access.

But even egalitarian access has advantages. It gives young people a longer period of time in which to experiment and to discover and develop their special talents and interests. For example,

the selection of a vocational course of study in high school used to be considered "terminal" education in the sense that it was extremely difficult to enter college with vocational credentials. It is now quite possible, however, and as a matter of fact increasingly common, for high school vocational students to enter colleges. Warren, (1970) found that 41 percent of the men who had taken vocational courses of study in high school were actually enrolled in college one year after high school graduation.

At the present time, the American educational system provides 14 educational years in which a young person may experiment without encountering serious admissions problems. But research indicates that at the point where selectivity is exercised–i.e., at the senior college level–student freedom of educational choice ends. Willingham and Findikyan (1969) found that while not very many students who had pursued vocational curricula in two-year colleges tried to transfer, 62 percent of those who did were denied admission by the senior colleges. They may have lacked either credentials or learning prerequisites or both.

STUDENT PERCEPTIONS OF COLLEGE

Since low-A as well as high-A students are now beginning to contemplate college attendance, what can be said about their expectations of what college should offer?

Students, in general, would like for college to be a pleasant experience where people are friendly and helpful. When high school seniors were asked in the SCOPE questionnaire to select descriptions of the college they would like to attend, the largest proportion (53 percent) of all students, regardless of ability, expressed a preference for the college description that read:

> **At this college there are many activities, and students are encouraged to take part. The professors go out of their way to make sure that students understand the classwork, and everyone is friendly on the campus.**

Whether the popularity of this description of a college is based upon its apparent lack of hard demands, or whether students choose it because they perceive the opportunity to find satisfaction in a variety of ways, is a moot question. For low-A students a very close runner-up in the preferred college was vocationally oriented:

> At this college students are preparing for a particular job or career. They are mostly interested in courses which train them for occupations they have chosen. Many of the students are working part-time to pay for their education.

Thirty-seven percent of the low-A students picked this college as the one they would most like to attend. It was selected by only 15 percent of the high-A students, who were more likely (21 percent to 9 percent for low-As) to prefer the traditional academic model:

> At this college there are many good students who try to get top grades. Professors expect them to study a lot, but frequently are willing to discuss such things as current world affairs and other serious topics outside of classes. The students enjoy going to concerts and lectures given on campus.

Either students are inclined to accept things the way they find them or postsecondary education can take some satisfaction in providing appropriate kinds of education for diverse student preferences. If, for example, we could combine the friendly atmosphere conveyed in the first model with the academic emphasis of the third college described, hypothetically we would satisfy 82 percent of the high-A students; 61 percent preferred the friendly model and 21 percent the academic model. Likewise, if we combined the friendly model with a vocational emphasis, we could satisfy 82 percent of the low-A students; 45 percent of them chose the friendly model and 37 percent opted for the vocational model. Students scoring in the middle third of the class had preferences that looked more like the low-A group; 57 percent preferred the friendly college and 29 percent the vocational model, with only eight percent choosing the description of the academically oriented college.

Despite the fact that the academic model is the one many educators admire, its image is not very popular among high school

seniors; only 13 percent of the total group, without regard to ability, give it first preference when asked which college they would wish to attend. Dunham (1969) has described in some detail faculty pressures to push state colleges toward greater academic and research emphases—toward emulating prestige colleges and universities. There is also considerable evidence that the majority of junior college faculty tend to pattern their aspirations along the traditional lines of the academic model (Cross, 1971b). Since almost all college faculty—junior college, senior college, or university—came from the group of students that are here labeled traditional, it is not surprising that their interests and those of today's traditional college students should coincide along intellectual dimensions. But that is all the more reason for concern about making an already heavily unidimensional school system ever narrower in its emphases and opportunities for success in developing diverse talents. Patterning egalitarian colleges after the kind of education that appeals to faculty can be a step backward for New Students. There is a New Student to higher education: His needs and interests are different from those of traditional college students, and perhaps even more importantly, they are different from those of traditional faculty members.

The fourth college description offered in the SCOPE questionnaire has little appeal to New Students or traditional students. Fundamentally it can be considered anti-intellectual and anti-purposeful:

> At this college most students go to athletic events. Most students do not study on Saturdays and feel free to go to movies during the week. Everyone has a lot of fun. Many of the girls at this school expect to be married as soon as they graduate.

Only six percent of the students endorsed "fun college" as their first choice. But low-A students were more likely to choose it than high-A students (nine percent, six percent, and three percent for the three aptitude groups), and boys were twice as likely to choose it as girls.

Table 17 presents a more detailed analysis of the elements that influence college choice. Unlike the data discussed in the

paragraphs above, these percentages are based upon students who are planning to go to college or are not yet sure; those who plan no type of postsecondary education are excluded.

TABLE 17

PERCENTAGE OF HIGH SCHOOL SENIORS WHO MIGHT GO TO COLLEGE RATING SELECTED COLLEGE CHARACTERISTICS A "MAJOR CONSIDERATION" IN CHOICE, BY APTITUDE THIRDS

	Low-A	*Middle-A*	*High-A*
Reputation of faculty for good teaching	66	77	84
Friendly social climate	56	63	59
Low cost	43	45	39
Offer of scholarship or other financial aid	38	32	31
Close to home	34	34	28
Intellectual atmosphere	28	29	40

Source: SCOPE data, 1966.

While a large majority (84 percent) of the high-A students stress that the reputation of the faculty for good teaching is a major consideration in choosing a college, a healthy majority (66 percent) of the low-A group also feel that good teaching is a requisite for a good college. The emphasis on a pleasant atmosphere peopled with good teachers predominates for all three aptitude groups. The appeal of an intellectual atmosphere is quite strong for the high-A students.

The financial aspects of college choice do not appear to differentiate between aptitude groups as much as might be expected. If low cost, offers of financial aid, and nearness to home are combined, however, the low-A students give considerably more weight than high-A students to these factors of cost. This is to be expected, since low-A students are predominantly students from low socioeconomic backgrounds.

Not included in this particular set of item alternatives is one choice that is considered major to many people selecting a college—the choice of the course of study. Reference to data collected from students entering two-year colleges in the fall of 1970 (CGP, 1971) helps to shed some light on that question, however.

Students registering for the transfer curricula in two-year colleges were most likely to say that their main reason for choosing the institution was because it was close to home (26 percent), and another 16 percent were attracted by the low cost. Thus, the data for two-year college students present the unusual situation in which the *better* students are attracted to the college more for its low cost than for its academic strength. This is understandable if it is assumed that the first two years of traditional higher education (transfer program) pursued in a community college is much like that taken in a four-year institution. Any number of institutions would fulfill a good student's needs for a traditional liberal arts education, and the primary advantages of the community college are low cost and convenience.

The situation is quite different for students enrolled in occupational curricula. These students, most of whom are low-A and low-SES students, are attracted to the community college for its strength in their intended field of specialization. Over one-fourth of the students enrolled in occupational programs stated that their main reason for attending the college was its "special strength in intended major field"—a reason given by only ten percent of the transfer students (CGP, 1971). While low cost and nearness to home are important to occupational students, their educational needs could not be met as well by other kinds of colleges. Thus, the community colleges are providing a curricular program that is attractive to New Students, while offering a financial alternative to students who may be like traditional students in interests and abilities and like low-A students in financial resources. While it is possible that New Students enroll in vocational courses only because they offer the only alternative to academic curricula, the data presented in Chapter VI seem to indicate more positive than negative reasons for their preference. This is not to say, however, that we may be content with academic education for traditional students and vocational education for New Students.

It is probably not sufficient to broaden junior college curricula by simply adding more vocational courses to meet the needs of New Students. Narrow vocational education can be just

as restricting as traditional academic education and probably considerably more damaging to the occupational futures of students. It is possible now that a narrowly trained vocational student will be outdated by the time he graduates; and with the rapid technological changes steadily taking place in industry, it is almost certain that new job skills will be needed several times during the lifetime of the average worker. In all probability, he will need retraining and the community colleges will need much greater flexibility and imagination than has ever been demanded of higher education in the past. Skill training in vocational education may be but a small part of the future task. The self-confidence and flexibility to try new things and a generalized approach to problem solving will almost certainly be requirements for both professional and skilled workers of the future. It is probably fair to say that neither traditional academic education nor traditional vocational education has given much attention to the personal development of the individual who is required to cope with modern society. It is not very likely that teachers can continue to teach academic and vocational skills in the classroom and hope that somehow the counseling staff will attend to "personal development."

There is no question that the ability to solve problems—whether they be problems of human distress tackled by a social worker, problems of stalled machinery approached by a skilled mechanic, or methods of smog control studied by a PhD scientist—is an equally appropriate goal for vocational or academic education. The function of education should be to provide alternate pathways to personal development and self-fulfillment. (For discussion of a model of alternative paths to excellence, see Chapter X and Cross, 1971a.)

STUDENT REQUESTS FOR COLLEGE ASSISTANCE

Just as students entering colleges have differing preferences, motives, and expectations, they also have varying needs. Some of these needs are expressed by the answers of entering community college freshmen to some questions in the CGP battery.

The Biographical Inventory contains an Assistance Guide wherein students may indicate the areas in which special help is desired from the college. There has been some feeling among counselors that New Students are resistant to counseling. The data do not show this to be the case. Quite the contrary, New Students generally are eager for all types of assistance. At least they express the need for help on a written questionnaire. It may be quite true, however, that the counselor will have to take the initiative in doing something about the expressed problems.

TABLE 18

PERCENTAGE OF ENTERING JUNIOR COLLEGE STUDENTS DESIRING ASSISTANCE WITH VARIOUS PROBLEMS, BY APTITUDE

	Low-A	*Middle-A*	*High-A*	*Total*
Counseling about educational and vocational plans	63	65	65	64
Help in developing good study techniques	76	69	58	69
Help to increase reading speed and comprehension	67	56	46	57
Help finding full- or part-time employment	44	37	38	39
Financial aid	35	30	32	32
Counseling about personal problems	26	18	16	20

Source: CGP data, 1969.

In Table 18, the greatest differences between low-A and high-A students fall just where expected—in those areas most obviously related to school success. Since the low-A category throughout this study is defined by scores in the lowest one-third on a verbal test, it is to be expected that these students feel inadequate in reading skills. As a matter of fact, however, a very large number of community college students of all levels of aptitude express a need for help in developing the requisite skills for college work. The community colleges have read this plea correctly. In response to my spring, 1970 questionnaire inquiring what provisions community colleges were making for New Students, 92 percent of those who responded said that they offered remedial or developmental courses to upgrade verbal or other academic skills. The next highest percentage, 76 percent, offered financial aids

especially designed for disadvantaged students, and 61 percent provided special counseling. (See Appendix C for complete questionnaire responses.) A substantial proportion of New Students express a desire for help in all three of these areas.

The access-oriented programs of the 1960s opened new opportunities to deprived segments of the population, and financial assistance will continue to be needed in egalitarian postsecondary education. But to the community college students represented in the figures in Table 18, financial assistance is not critical to nearly as many students as *educational* assistance. The same perception exists among high school seniors. When SCOPE seniors were asked to state the one most likely reason that they might fail to enter college, the number one reason given by low-A students was "My grades are not good enough." A third of the New Students focused on the barrier imposed by their poor academic performance, compared to only 12 percent who saw lack of money as the major barrier to college attendance. When college freshmen in the SCOPE study were asked to indicate likely reasons why they might drop out of school, financial reasons ranked below military service (46 percent for men), academic problems (34 percent), lack of interest (24 percent), and marriage (27 percent for women). The cost of tuition and fees (18 percent) was perceived as a little more threatening to continued schooling than the loss of outside financial help (14 percent).

While it seems to me that funding of educational programs designed especially for New Students should receive a higher priority in the decade ahead than student financial assistance, there are some important sex differences appearing in the student financial-need data. The largest reservoir of academically able students not now continuing their education beyond high school consists of women who are above average in ability and below average in socioeconomic status (see Chapter II). Many of these women are just beginning to enter public community colleges, and their need for financial assistance is much greater than their need for special educational programs. Among the six problem areas listed in Table 18 there are no important sex differences in the percentages of students

desiring college assistance, except on the need for help on study techniques (60 percent of the men and 55 percent of the women) and on the two items related to financing education. According to the CGP data (1971), women were more likely than men to need help finding a job (41 percent to 32 percent) and to request financial aid (32 percent to 26 percent).

The sex differences in requests for financial aid are especially large among the New Student group. Forty-three percent of the low-A women and 32 percent of the low-A men have indicated a desire for financial aid, while 40 percent of the low-A men and 54 percent of the low-A women have requested help finding full or part-time jobs. There is little doubt that college women have a more difficult time finding jobs than do men. It may also be that women are somewhat more prone to enter junior college without jobs, whereas men are more reluctant to be dependent upon parental assistance if financial aid is not forthcoming. As postsecondary education becomes more essential and women receive greater encouragement to attend college, the number of women needing financial assistance is likely to climb accordingly. It is not likely that job opportunities for women will expand as rapidly as educational opportunities. Hence, lower pay and fewer job opportunities for women may throw a disproportionate female need on the financial resources of colleges.

Although Table 18 shows that counseling help for personal problems is desired less often than any of the five services listed in the Assistance Guide, New Students are more likely to indicate a desire for personal counseling than are traditional students. A great deal has been written about the home problems of low-SES youth, and we have devoted considerable attention to the stressful environments of the schools for low-A youth. There are no very comprehensive studies, however, of the specific nature of the personal problems of New Students as compared with those of traditional students. We have commented upon the fact that low-A students are more likely to feel tense in class than high-A students, and a second item on the SCOPE questionnaire provides some clue about the nature of some problems at home faced by New Students.

Among the college freshmen who answered the SCOPE questionnaire, New Students—especially men—were likely to say that they were in conflict with their parents. Eighteen percent of the low-A males and 12 percent of the low-A females admitted to problems with the generation gap. Only ten percent of the high-A males and females indicated that being in conflict with parents was descriptive of them in their first year at college. Since one of the characteristics of New Students is the fact that, in attending college, they are doing something quite foreign to anything their parents have done, the existence of a generation gap is not surprising. It may, however, be more appropriately perceived as an educational gap than an age gap.

The relationship between personal problems and low academic achievement can be regarded as cause or effect or both. Young people with personal problems are unable to devote full attention to school work. In this sense, the personal problems are the cause of poor school achievement. On the other hand, according to the theory advanced in Chapter IV, the failure of low-A students to do well in the competition of the classroom may well create personal feelings of doubt and insecurity. Whichever came first—the poor school performance or the personal problems—it is a fairly safe bet that once the cycle starts it tends to reinforce itself. Personal problems can lead to poor school performance which in turn may lead to problems of self-doubt and self-dissatisfaction which, added to the further burden of poor grades, may increase personal insecurity—and so the cycle refuels itself. While the schools cannot be expected to solve the personal and home problems of students, they can offer personal counseling for a period in life that many young people find quite difficult. Most importantly, schools can begin to make some of the fundamental changes that would remove the fear-of-failure and personal-threat syndrome from the educational experience. There is reason to suspect that the forced competition of young people along narrow academic dimensions is responsible for creating some special problems for New Students and for exacerbating others.

THE INFLUENCE OF COLLEGE

When college students in the SCOPE sample were asked to evaluate their first year of college in terms of how much progress they had made in developing various skills and abilities, most students felt that they had made considerable progress in improving their ability to get along with different kinds of people. In fact, more students—New Students (63 percent) as well as traditional students (56 percent)—felt that they had made progress in interpersonal relations than in any of the five other objectives listed. New Students ranked the development of career skills second in terms of progress made during the first year of college (45 percent for low-A to 24 percent for high-A), whereas traditional students were somewhat more likely to feel that they had made progress in developing intellectual interests (48 percent for high-A to 41 percent for low-A).

It is interesting to observe that the skill most likely to be developed in the first year of college is one that is frequently considered incidental to the educational enterprise. Furthermore, low-A students, most of whom are enrolled in commuter colleges, are somewhat *more* likely to feel that they have made progress in learning how to get along with people than are high-A students, most of whom are enrolled in residential colleges where dormitories, fraternities, and a greater number of on-campus social activities provide experience in relating to other people.

Although low-A students are somewhat more likely than traditional students to feel that they learn how to get along with people during their first year in college, it is the high-A students who feel that fellow students have influenced their thinking on social issues. Forty percent of the high-As and 30 percent of the low-As said that they had changed their opinions about social issues such as civil rights, the morality of fighting in Vietnam and the desirability of protest movements. New Students are most likely to attribute changes in attitudes on social issues to the influence of outside speakers or activists (18 percent); fellow students are the next most likely source of influence (11 percent), followed by teachers (seven

percent), and student leaders (six percent). For high-As the order is: fellow students (19 percent), outside speakers or activists (11 percent), teachers (seven percent), and student leaders (three percent). Apparently neither of the formal, recognized channels of influence—teachers or student leaders—has much effect on student attitudes regarding social issues. The relatively great effect of "outside speakers or activists" on low-A students is difficult to interpret because of the conjunction of two rather different sources of influence. If we assume that outside speakers and activists both play the role of expert on a specific topic to a voluntary gathering of students, then the explanation of the findings may lie in the greater willingness of low-A students to accept the word of authorities, which is a major characteristic of the authoritarian personality discussed in Chapter V. There is also the fact that in 1967 when these data were collected, students on four-year college campuses were more actively engaged in discussing Vietnam, protest movements, and civil rights issues than were students on two-year campuses. Recently, however, community college students have taken a more active role in discussing these issues of national concern, and were we to collect data today, we might find that community college students were attributing increasing amounts of attitude influence to fellow students. The experiences and people that have influence on the social attitudes of students is of major concern to educators. While these tentative findings raise some interesting questions, the variables are so complex that it is difficult to tease out any very satisfactory conclusions.

If educators cannot take much credit for the progress that students feel they have made in interpersonal relationships, it does seem as though they may take some credit for the areas that students rank second in terms of the progress they have made in their first year of college. A large number of New Students (45 percent) feel that they have made a great deal of progress in developing skills and techniques directly applicable to a job, but few high-A students (24 percent) feel that career development has been an outcome of their first year in college. High-A students (48 percent) are more likely to feel that they have developed intellectual interests and a greater appreciation of ideas. The differences are to be expected

if the vocational curricula, in which many New Students are enrolled, and the academic curricula, which traditional students tend to pursue, are doing their jobs. According to the students, they are.

The development of the habits involved in critical thinking and an increased appreciation of the arts are areas in which only about one-fourth of the students admit much progress, and low-As are as likely as high-As to feel that progress has been made in these areas. An interesting difference between New Students and traditional students appears in the percentages saying that they have made good progress in developing a satisfying philosophy of life. For New Students, it ranks fairly high, with 32 percent claiming progress; for traditional students, it ranks the lowest of six areas listed (24 percent). Does the selection of a career and specific progress toward it as a life goal help one to attain a philosophy of life? Perhaps.

One of the heartening findings to result from the questions asking students to assess their progress toward educational objectives is the positive attitudes on the part of the students. Few students have checked the box that indicates a feeling that little or no progress has been made, but there are differences between low-As and high-As in two areas of development. High-As are more likely than low-As to feel that they have made no progress toward the development of skills applicable to a job (26 percent to 11 percent) and that no progress has been made in developing a satisfying philosophy of life (24 percent to 13 percent). Perhaps the high-A students feel they have plenty of time—56 percent of them say they expect to get at least a master's degree. Exactly the same percentage of low-A students expect to be faced immediately with the practical problems of life—56 percent of them expect to leave school with less than a bachelor's degree.

An analysis of students' perceptions of their educational experiences leads to some broad conclusions and speculations:

There is evidence to show that New Students are more uncomfortable in the traditional academic educational system than

are the students for whom the present educational experiences were designed. They are more likely than traditional students to feel that the academic pace is too fast for them; they are more likely to feel nervous or shy in the competitive classroom; they are more eager for college assistance in the areas most closely related to the academic competition of traditional education.

New Students have some ideas about what they would like schools and colleges to do. They are likely to be attracted to courses and colleges that are seen as practical preparation for their vocational futures. The data support a broad generalization that New Students are eager to take on their adult responsibilities. New Students attending community college indicate feelings of progress in learning how to get along with people, in learning job-related skills, and in developing satisfactory philosophies of life.

New Students to higher education face some of the same problems faced by all pioneers into new ventures. Their lives become a mixture of the old and out-of-date and the new and not-quite-ready. Their parents and homes may present a way of life that is no longer adequate for them—and yet the new life promised by higher education isn't quite ready for them, either. Traditional students and traditional faculty members perpetuate their own scheme of values. Although New Students show some satisfactions with traditional vocational education, it is not sufficient to separate higher education into two tracks—academic and vocational. The development of competency may be a much more valuable learning experience than the mastery of content for both traditional students and New Students.

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8

New students look at careers

The United States is the first country in the world where the number of white-collar workers has grown to exceed the number of blue-collar workers. White-collar workers constituted less than one-quarter of the work force in 1910, but today nearly half of all employed persons work at white-collar jobs. Not only has the last half-century seen an upward shift in the occupational structure, but even within occupations there has been a spiralling demand for increased amounts and complexity of training. Workers in the professional and technical occupations now *average* more than a college education. Indeed, even clerical and sales personnel now have, on the average, more than a high school education (Borow, 1964). Education has become the gateway to the jobs of the future, and occupational preparation is a major function of postsecondary education.

When high school seniors in the SCOPE study were asked which of eight goals was the most important reason for attending college, the reason given by the largest number of people was the securing of vocational or professional training. Among entering college students participating in the American College Testing Program, 51 percent said that their most important goal in college would be the pursuit of occupational training (Holland & Whitney, 1968). An astounding 80 percent of the freshmen entering community colleges in the fall of 1970 agreed that "The chief

benefit of a college education is that it increases one's earning power." Across all types of colleges included in the annual American Council on Education survey, two-thirds of the freshmen agreed with the statement (ACE, 1970). Thus, whatever other claims we may make for the importance of education, we must give the matter of career preparation serious study. New Students, more than traditional students, look to education as the pathway to better jobs.

The specific questions to be answered in this chapter concern differences between traditional students and New Students in their concern with career development and the role that education plays in it. The relevant dimensions can be discussed under four broad headings: the processes of making career decisions, career aspirations, career preferences, and the job characteristics considered essential by New Students.

THE PROCESSES OF MAKING CAREER DECISIONS

The fewer choices one has, the easier it is to make a decision. In testing whether this sweeping generalization is true more often than it is false with regard to making occupational choices, we can make a couple of predictions which can be checked against existing data. First, it is hypothesized that students low in traditional academic ability (low-As) will reach career decisions more readily than high-As. And secondly, it is hypothesized that women will reach career decisions more easily than men. The common assumption behind both predictions is that low academic performance and female sex contribute to the narrowing of career options. An example of the narrowness of career choices available to women is provided by the Strong Vocational Interest Blank which measures 36 occupations for women and 79 for men. Levin and his colleagues (1971) have noted the restriction in options that accompany the failure to obtain maximum benefits from education. They observe the power of educational attainment to "provide an individual with a larger number of high quality alternatives from which to choose in determining his destiny and the destiny of those in his household [p.3]."

The data support the hypotheses that low-A students are more likely than high-A students to have made career choices by the time they enter college and that women are more likely than men to feel confident in their choices of occupation. It follows that the subgroup of low-A women should be especially likely to have decided upon careers by the time they enter college. And that is a fact, according to data from both the SCOPE and CGP samples. In both studies, low-A women were quite the most likely subgroup to say that their occupational choices were definite. In the SCOPE 1967 follow-up of high school seniors into college, 48 percent of the women who had been low-A students in high school said that their choice of occupation was "very definite." High-A women were the next most likely subgroup to have made a definite decision (38 percent), followed by low-A men (30 percent), and high-A men (26 percent). The phrasing of the question and the figures in the CGP sample of two-year college entrants were different, but the pattern was identical. Thirty-two percent of the low-A females said that they knew exactly what kind of work they wanted to do after finishing their education. They were followed by the subgroup of high-A females, 22 percent of whom were as certain of their future occupation, and they were followed by 18 percent of the low-A men and 14 percent of the high-A men. Thus the data tend to support the prediction that women and low-A students are the most likely groups to have made career decisions by the time they enter college—probably because their choices are fewer.

But another generalization should be examined for an alternative explanation of the data. It is possible that the effect just observed is explained by a hypothesis that states that the closer one is to the necessity of making a decision, the more likely it is that the decision will be made. We could observe, for example, that low-A women will be the first subgroup to stop formal schooling to enter the labor market, whereas high-A men have a relatively long period of time before they must reach definite decisions about what they will do after leaving school. In the SCOPE college sample, only 37 percent of the low-A women plan to attain at least a bachelor's degree, whereas 95 percent of the high-A men plan to remain in college for a minimum of four years. Thus it is true that

high-A men have more time than low-A women to reach final career decisions. But the explanation breaks down when we observe that high-A women plan to remain in school longer than low-A men; 89 percent of the high-A women plan to complete at least four years of college, compared with only 54 percent of the low-A men. Yet high-A women are more likely than low-A men to have reached career decisions. The fact that most people could predict that teaching would be the career choice of most female college graduates is indicative of the narrow career options that have been traditionally open to women. It is not as easy to guess what career field a low-A man plans to enter. Skilled craftsman, machine operator, teacher, and foreman are all popular career choices for low-A men (SCOPE, 1966 data).

Upon entrance to college only 16 percent of all students feel that there is a good chance they will change their career choices, but students in two-year colleges are least likely to entertain the possibility (11 percent), while those in universities are most likely (21 percent) to entertain it (American Council on Education, 1970). The experience of college, however, has some effect upon career decisions. When viewed from the perspective of one year of college completed, students in the 1967 SCOPE follow-up said that college course work was the most likely of seven possible influences to affect their career goals. Only 22 percent of the low-As and 16 percent of the high-As said that their course work had had no effect on their career plans. But courses were more likely to reinforce career choices than to change them, and there were no important differences in the extent to which courses influenced low-A and high-A students. Conversations with other people were the influences most likely to show a difference between traditional students and New Students. New Students were more likely than traditional students to attribute influence to counselors, while high-As named fellow students as a source of influence. Thirty-two percent of the low-As and 22 percent of the high-As credited counseling with making them more certain of their career choices; 14 percent of the low-As and 12 percent of the high-As said that counseling had changed their goals somewhat; and about eight percent of each group claimed that they were less sure (six percent) or had changed goals

completely (two percent) as a result of counseling. Forty-four percent of the low-As and 57 percent of the high-As stated that counseling had had no effect on their career plans.

The best explanation for the greater influence of counselors on New Students probably lies in the greater availability of career counseling in community colleges, but even so, counseling has less impact on career decisions than has association with instructors. Since the exposure to instructors is about equal for all students, it is not surprising that New Students and traditional students are equally influenced by instructors; most of them say association with teachers has either reinforced their career decisions (36 percent) or had no effect (35 percent).

Fellow students are less likely to influence low-A students than they are to influence high-As; 46 percent of the low-As and 34 percent of the high-As said that association with other students had had no effect on career choices. But once again, where fellow students were credited with influence, they were most likely to reinforce career choices already made. And once again, the most logical explanation involves availability and proximity. Traditional students on residential campuses probably do more talking with fellow students than do New Students who are likely to have jobs, live at home, and commute to classes. Student activities—on or off the campus—had no effect on career goals for nearly three-fourths of the students.

In summary, the data support some broad conclusions about the process of making career decisions. First, the more restricted the options, the more likely it is that the student has made a career decision. Tentatively we suggest that the limitation of choice propels young people into career decisions more rapidly than does the nearness in time to actual employment. For example, the chances are pretty good—better than one in three—that a female college student is preparing to become a teacher. Perhaps she plans to spend the very minimum number of years possible in school or perhaps employment as a teacher is five to eight years in the future. I suggest, however, that her decision is made because she doesn't

perceive her choices as numerous. Likewise, low-A students have not, in the past, had the options open to them that high-A men, especially, have. The introduction of a much broader range of career options into the community college curriculum is beginning to broaden the vocational choices available to New Students.

Secondly, the sources of influence on career decisions are likely to be related to the availability or opportunity for discussion of careers with other people. Course work, much of which is directed toward career preparation, exerts the greatest influence on both low-A and high-A students, followed by association with teachers, followed by counseling for low-A students and association with fellow students for high-A students.

CAREER ASPIRATIONS

Most young people expect to have more education than their parents had, and they also expect to hold higher-status jobs. But the influence of academic competence on career aspirations is evident in the figures in Table 19.

TABLE 19
FATHERS' OCCUPATIONS AND STUDENT CAREER ASPIRATIONS AS A FUNCTION OF ACADEMIC ABILITY, IN PERCENTAGES

	Job Status		
	Low	*Middle*	*High*
Lowest-third students			
Father's occupation	35	36	29
Own aspiration	11	41	48
Highest-third students			
Father's occupation	17	37	46
Own aspiration	1	12	86

Source: SCOPE, 1966 data.

Table 19 shows the percentages of low-A and high-A students from homes of fathers holding low-, middle-, or high-status jobs. Compared with these percentages are the percentages representing students' own career aspirations. The shift is definitely upward for both low-A and high-A students. But the dramatic shift upward occurs for students who are successful in school. Almost all of the academically able high school seniors want to enter the professions or other high-status white-collar jobs, such as manager, executive, artist, or government official. The 12 percent who don't aspire to the professions are mostly women who plan to be office workers. Although the high-A students are more likely than low-A students to come from the homes of fathers who hold high-status jobs, the differences in the younger generation will be much greater than the differences in the parental generation illustrated here if the occupational plans of the students come to fruition.

Lowest-third students aspire to higher-status jobs than those held by their fathers, but the steps upward are more gradual than for high-A students. Most of the low-A students who plan to enter what are classified here as high-status jobs are hoping to become social workers, teachers, and engineers—jobs that require a bachelor's degree. The middle-level jobs desired by 41 percent of the low-A students include jobs such as office workers, salesmen, and skilled craftsmen. The 11 percent who seem not to aspire much above the low-status jobs held by their fathers consist primarily of women planning to become beauticians, practical nurses, and the like.

Certainly it appears that academic achievement gives the big boost to career aspirations. Education is recognized as the path for upward mobility. The figures in Table 19 are one more indication of how important academic performance is in our society. Just as Chapter II showed that academic ability is the primary determinant of college attendance, so these figures show the influence of academic ability on career aspirations. A recent review of the research on the relationship between school achievement and post-school success concluded that quality and quantity of schooling has a significant impact on the productive capacities and earning

opportunity of individuals, even when ability and other intervening influences are controlled (Levin, et al., 1971). Career aspirations—if they are realistic, and most of them are—are very closely related to educational aspirations. Low-A students typically choose occupations that have minimal academic requirements.

CAREER PREFERENCES

Despite all the talk about the unwillingness of young people to accept the world the way it is, the evidence is that students are hardheaded realists when it comes to making career choices. Even when the SCOPE questionnaire encouraged high school seniors to dream a bit about what they would *like* to do, without thinking about what it would pay or whether they had the necessary qualifications, most students were conservative in their desires. Low-A students tended to make occupational choices that required little in the way of advanced education. To take a vivid example, the most popular occupational choice among low-A girls was typist or secretary, both of which were selected by 78 percent of the low-A girls who stated that they would like the work either very much or fairly well. Top choice for low-A boys was auto mechanic, with 69 percent of the low-A boys responding favorably.

TABLE 20

OCCUPATIONAL PREFERENCES BY ACADEMIC APTITUDE

	Percentage Favorable	
I. *High Preference by Low-A students*	*Low-A N=11,230*	*High-A N=11,728*
Female Preferences		
Typist	78	42
Secretary	78	51
Office clerk	75	37
Beautician	73	45
Store clerk	64	39
Nurse	59	49
Office Manager	56	40
Bookkeeper	55	32
Male Preferences		
Auto mechanic	69	42
Army officer	68	53

TABLE 20 (continued)

	Percentage Favorable	
	Low-A N=11,230	*High-A N=11,728*
Electrician	60	41
Office manager	56	46
Policeman	51	32
Machinist	50	24
II. *High Preference by High-A Students*		
Female Preferences		
Author of novel	60	76
High school teacher	45	64
College professor	33	62
College president	43	53
Doctor	38	53
Sculptor	27	50
Lab technician	33	50
Male Preferences		
Author of novel	46	5[illegible]
Spaceman	46	59
College professor	33	54
Doctor	40	53
U.S. Senator	41	53
College president	42	53
III. *No Difference by Ability*		
Female Preferences		
Housewife	85	84
Airline stewardess	84	79
Social Worker	79	78
Elementary teacher	66	68
Guidance counselor	57	60
Large company president	51	48
Male Preferences		
Large company president	67	71
Electrical engineer	57	53

Source: SCOPE, 1966 data.

Table 20 illustrates several patterns of occupational preferences when analyzed by academic ability and by sex. The analysis is by ability thirds—the percentage in each group responding that they would enjoy doing the work if they had the chance—i.e., stating either "I would like this very much" or "I would like this fairly well." For the purposes of this presentation, some criteria have been devised for grouping occupational preferences. For an occupational choice to appear under the heading of Category I—High Preference by Low-A students -or Category II—High Preference by High-A students—there must be a large difference (minimum of ten percent)* between the percentages of low-A and high-A students responding favorably to the occupation. Secondly, the occupation must be reasonably appealing to the group; at least 50 percent of the students in the subgroup must have expressed a liking for the occupation. Thus the occupation of typist is considered a female, low-A preference because it has received a favorable response from 78 percent of the low-A girls (over half) and by only 42 percent of the high-A girls (greater than ten percent differential). It is not included under any male heading since there is no aptitude grouping of men where half of them have expressed an interest in doing the work of a typist. Category III—No Difference by Ability—shows those occupations that appear almost equally attractive to all ability levels.

A number of observations may be made regarding these sets of occupational groupings. Among the occupations of interest to low-A students there is a strong sex differentiation. Only the job of office manager appeals to both men and women. Very few low-A men say they would enjoy typing, and very few low-A women profess an interest in auto mechanics. The situation is quite different among the choices made by high-A students. Half of the occupations that high-A students show a much greater liking for than low-A students appear on both the male and female lists. High-A women,

*With the large numbers involved in these studies, a difference of even one percent is statistically significant.

for example, are just as interested in the work of a college president as are high-A men.

The jobs listed in Category I are stereotyped as men's jobs or women's jobs. And yet, the *majority* of high-A men and women reject these jobs. More high-A men dislike auto mechanics than like it, and more high-A women dislike typing than like it. It is more accurate to speak of Category III jobs as "women's jobs" because they have a high appeal for all women. Perhaps because of the greater variety of men's jobs, there are relatively few jobs that can be labeled "men's jobs" in the sense that they appeal to all men.

High-A females show the greatest discrepancy of all subgroups between what they would like to do and what they are likely to do. There are, for instance, very few female doctors, college professors, or college presidents. And the number of authors and sculptors is limited for either sex. At the present time, women with bachelor's degrees are considerably more likely to fill the jobs listed under Category III than they are to fill the jobs that appeal uniquely to highly able women.

The common element in the Category III female-preference jobs is the emphasis on working with people. The jobs do not appear to make large intellectual demands, and it may well be that academic ability is not an important requisite for competence on the job. Low-A women are just as interested and perhaps just as capable as high-A women of performing the work of an airline hostess, a social worker, or an elementary school teacher. They are not likely to have the opportunity to do so, however, since at the present time most of the employers of Category III jobs are able to require bachelor's degrees. Thus, high-A women are generally preferred to low-A women for some of the jobs in which women of lesser academic ability are most interested.

The occupations preferred by men present in some ways a more complicated picture, perhaps because they have not been subject to as much societal stereotyping. Low-A men, for example,

express a liking for jobs that require considerable specialized training. Years ago the masculine low-A jobs were physical in nature, but most of the jobs requiring physical strength have little appeal for anyone. Only 17 percent of the men of all levels of ability expressed an interest in the work of a longshoreman, for example. And in any case, machines have replaced physical labor, demanding instead highly trained technicians to run the machines. Thus, low-A men are faced with some fairly complex intellectual tasks that low-A women do not face. With the exception of nursing, the female low-A job preferences do not require long periods of specialized training. The job of an auto mechanic demands considerably more training—in terms of time and complexity—than does the job of store clerk or typist.

The hypothesis might be posed that the greatest problems in occupational dissatisfaction will occur among low A men and high-A women. Low-A men may be faced with intellectual and technical demands beyond their interests or particular abilities, whereas high-A women may have interests and abilities in occupations which are not readily available to them. If jobs such as social worker, guidance counselor, and elementary school teacher were not labeled "woman's work" by society, it is quite possible that some low-A men would prefer these people-oriented jobs to some of the more technically oriented jobs of the skilled trades. There is some hard evidence to support this suggestion. Although only 37 percent of the low-A men in the SCOPE high school senior sample express an interest in being social workers, 67 percent express an interest in helping the poor, which is certainly one of the major activities involved in social work.

What happens in a society in which barriers to opportunity are erected on the basis of stereotypes is that those lowest in the prestige hierarchy are the recipients of snowballing restrictions on freedom of choice. Since high-A women are lower on the prestige scale than high-A men, they are displaced from Category II jobs to Category III jobs. High-A women, however, are higher on the prestige scale than low-A women and so they displace low-A women from jobs in Category III. High-A women are considered better

qualified for positions as social workers than low-A men, even though the relevance of academic requirements to job performance has not been demonstrated. How much better it would be if people pursued jobs that utilized their best abilities and interests instead of jobs that society deemed appropriate for their sex, race, age, or whatever.

JOB CHARACTERISTICS

Occupational interests expressed by students involve a complex weighing of abilities and interests and a realistic assessment of opportunity. Added to these complexities are the considerations of job characteristics such as salary, security, and opportunity to utilize specific talents. The data show that there are some differences between traditional students and New Students in the job characteristics they regard as important. New Students have been widely characterized as pragmatic seekers of immediate and tangible rewards. Almost as widely touted is the characterization of today's traditional college students as selfless and socially concerned. Traditional students are supposedly rejecting big salaries and personal power in seeking jobs, and New Students are presumably newly interested in jobs in business and in upward mobility in the establishment. How accurate are these portrayals of job requirements and satisfactions?

The greatest differences between traditional students and New Students in job requirements occur along the dimensions of money and job security. Project TALENT data on 1960 high school seniors showed 62 percent of the low-A students and 46 percent of the high-A students rating a good starting income as extremely or very important. The 1967 SCOPE sample of college freshmen showed 55 percent of the low-As and 31 percent of the high-As feeling that it was essential or very important to find a job that offered an opportunity to "earn a great deal of money." Any number of explanations can be offered for the differences in emphasis on money by low-A and high-A students. It may be the matter of tangible reward; it may be the fact that low-A youth

tend also to be low SES and therefore emphasize the importance of improving their economic position; it may be that the kinds of jobs that many low-A youth expect to hold offer little hope of any reward except money. At any rate, all of the explanations push in the same direction, and perhaps it is surprising that the differences aren't greater than they are.

The evidence is similar for the greater interest of low-A youth in job security. Ninety-one percent of the low-A college students in the 1967 SCOPE follow-up rated job stability and security essential or very important, compared with 72 percent of the high-A students. For some not readily interpretable reason, high school seniors queried in 1960 were not as greatly concerned with job security as those in a 1967 sample; only 68 percent of the low-As and 61 percent of the high-As in the Project TALENT sample rated "job security and permanence" as extremely or very important.

On a variety of other job characteristics, the general pattern that emerges tends to support the common belief that New Students are more concerned with tangible job rewards than traditional students who tend to value intangible job satisfactions. In addition to those already discussed, the job characteristics rated essential or very important more frequently by Project TALENT low-As were: "freedom to make my own decisions" (57 percent of the low-As to 52 percent of the high-As); "opportunity for promotion and advancement in the long run" (69 percent to 63 percent); and "meeting and working with sociable, friendly people" (71 percent to 64 percent). High-A students were more likely than low-A students to consider it essential or very important that they do work that seemed important to them (83 percent to 74 percent). The pattern was similar in the 1967 SCOPE data for college freshmen. High-A students were somewhat more likely to value the opportunity to use special talents (42 percent to 38 percent) and to be creative and original (24 percent to 20 percent), whereas low-A students tended to stress earnings, prestige, and security. The interest of the low-A group in working with people appeared in both sets of data. But the difference between the percentages of men and women expressing an interest in working with people was

greater–averaging about 20 percentage points–than the difference between low-A and high-A groups–about nine percentage points difference. If, however, the new society will demand more people helping people, then it is possible that the *important* jobs of the future will be of great interest to people who have not held the prestige jobs of the past–individuals of lower academic ability and women. There is an urgent need to develop new criteria for evaluating job performance. Is it true that *academic* ability is as good a general predictor of capability across a wide variety of tasks as we seem to believe? How much weight should be given to interest? Isn't it likely that a low-A man with great interest in working with people would make a better social worker than a high-A man or woman with moderate interest?

The data presented in this chapter verify the widely held belief that New Students view education in pragmatic terms. Although *all* students–traditional students as well as New Students–believe that the most important functions of education lie in the general area of occupational preparation, New Students present a picture of greater eagerness to get at the business of earning a good living. Upon entrance to college, New Students are more likely to have made career commitments; they plan to concentrate on learning things that will be useful to them in their jobs; they aspire to jobs of working with people or things–as opposed to working with ideas or abstractions. They want, generally, to have more of the good things of life than their parents have had, but their career preferences appear tied rather closely to reality with respect to educational demands.

Indeed, one might observe that perhaps they are too much influenced by reality factors. They are much more likely than traditional students to succumb to sex stereotyping in job preferences and, to a somewhat lesser extent, they are reality bound in terms of academic preparation. There is, however, a great deal of interest on the part of low-A women in jobs such as airline stewardess, social worker, teacher, and guidance counselor. Traditionally, these jobs have been reserved for women with college degrees, despite the fact that skills in interpersonal relations may

be more relevant to good job performance than either academic prowess or sex. Perhaps the egalitarian era in higher education will force employers to look more carefully at the skills and interests of candidates and to place less emphasis on educational credentials.

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9

New students look back

The topic that is the subject of this book is, for the most part, necessarily future oriented. New Students are just beginning to present challenges to postsecondary education and to the broader society. We don't have much experience to draw upon in facing the prospect of universal higher education. But we do have some miniexperiences. We know of individual students who conform to the research description of New Students—at least superficially—who have attended college in the past. We know that some institutions of postsecondary education have for many years catered to a clientele that consists of nontraditional college students. Fortunately, we even have some data on the outcomes of education—and the outcomes of lack of education.

How handicapping is limited education in a society that places education on a pedestal? How well have various kinds of educational experiences prepared young people to cope with the demands of life in the twentieth century? Can a person born in poverty escape it through education? Is education as important to future career status as we have been led to believe? Some insights bearing on these important questions are available in the massive data bank of Project TALENT. In seeking answers to the questions posed, I have distilled bits of information from the profiles of 20,965 young men and women who have met three criteria: They participated as high school seniors in the full research program of

Project TALENT in 1960; they participated in *both* the one-year follow-up in 1961 and in the five-year follow-up in 1965; and they were working full-time in 1965. The bias of the sample lies in the cooperativeness of young people; only remarkably cooperative people are included in these analyses. They not only had to stay with the study for five years, but they had to furnish *all* of the information needed to answer the particular question under study.

EDUCATIONAL ATTAINMENT AND SALARY

The first question asked of the data is: How much difference does postsecondary education make in the amount of salary received five years after high school graduation? The answer is that it made a lot of difference in the mid-1960s. A student with a bachelor's degree who was just entering his first year of work experience was likely to make more money than a young person who had five years of experience in the labor market but no postsecondary education. Table 21 illustrates the monetary value of a college degree. In this analysis a salary of $400 per month was selected as a typical salary for a person in his early twenties in 1965. Forty-five percent of the male and 36 percent of the female full-time workers reported salaries of over $400 per month, making the figure a somewhat better than average salary.

TABLE 21

PERCENTAGES OF FULL-TIME WORKERS REPORTING SALARIES OF MORE THAN $400 PER MONTH FIVE YEARS AFTER HIGH SCHOOL GRADUATION

Group	*Percentage* Male	Female
1. Bachelor's degree----------High-A---High SES	71	70
2. Bachelor's degree----------High-A---Low SES	69	65
3. Bachelor's degree----------Low-A----High SES	65	62
4. Bachelor's degree----------Low-A----Low SES	55	36
5. No postsecondary education--High-A---High SES	48	24
6. No postsecondary education--Low-A----High SES	40	19
7. No postsecondary education--High-A---Low SES	36	18
8. No postsecondary education--Low-A----Low SES	26	6

Source: Special analysis of Project TALENT data.

The groups shown in Table 21 consist of all possible combinations of highs and lows on each of three variables. The highs on postsecondary education are those who had obtained bachelor's degrees by 1965; the lows are those who had received no certification of any schooling beyond high school. The highs on academic aptitude (high-A) consist of all those who scored in the top one-third of Project TALENT 1960 high school senior norms on the academic aptitude composite, whereas the lows are those scoring in the lowest one-third. The high and low SESs are those who ranked in the top or bottom third among high school seniors on the Project TALENT socioeconomic index. Table 21 shows the percentages of the 16 subgroups who were making more than $400 per month for full-time work in 1965. The range is from 71 percent of the men in Group 1 to six percent of the women in Group 8.

The percentages in Table 21 are based on data for 5,531 young men and women, the number remaining after eliminating all those falling into middle categories on academic ability, SES, education, and salary, plus all of those lacking *any* item of information necessary for the four-way classification scheme used. As might be expected, Groups 1 and 8 are the largest in size numerically. This simply illustrates once again the tendency of the world to divide into two sectors—the "haves" and the "have-nots." Most young people from privileged homes made high test scores, graduated from college, and made above-average salaries. Most young people from poor homes made low test scores, took no formal education beyond high school, and made low salaries. But the data also show the power of education to change the status of young people.

The possession of a bachelor's degree had more influence on salary than any other characteristic measured. College graduates, regardless of ability or SES, made higher salaries than those without postsecondary education. All bachelor's degree groups (Groups 1-4) rank above all no-postsecondary-education groups (Groups 5-8). To determine the effectiveness of a college degree in producing a relatively good salary, compare the two groups of men that are comparable in terms of academic promise and socioeconomic

background—for example, Groups 1 and 5. The only difference between these two groups on our measures is that the men in Group 1 have college degrees and those in Group 5 do not. Whereas 71 percent of the college-degree men were making above-average salaries, only 48 percent of the nondegree men of comparable ability and background were in this income bracket. Approximately the same discrepancy exists between the salaries of degree and nondegree men in Groups 4 and 8. Low-ability men from poor homes who managed to make it through college (numerically only 59 compared to 699 who did not) were twice as likely as their noncollege peers to be making better than average salaries in 1965. One might well inquire what personal qualities were present in those few men of low SES and low measured ability who managed not only to enter college but to obtain their degrees. One might be just as curious about the motivations of men with high ability *and* high SES (Group 8) who stopped all formal education upon receipt of high school diplomas.

The very existence of these atypical groups reminds us that we cannot overlook the personal characteristics that play an important role in aspirations and achievements at all of the choice points in the lives of individuals. It is, of course, highly likely that the same personal qualities that lead a person to enter college also contribute heavily to the probability that he will remain in college to graduate and that he will seek a good job and be promoted rapidly.

Nevertheless, extensive research on the subject does show evidence that some portion of the monetary benefits of the college degree are attributable to higher educational attainment alone (Levin, et al., 1971). There have been numerous attempts to tease out of research data the proportion of the income differential between college graduates and those who have not attended college that can be attributed to the mere possession of the degree. There is more consensus among researchers than one might suspect, and a review of the available data suggests that the "percentage of income differential directly due to schooling is somewhere between 67 and 82 percent [Hartnett, 1971, p. E-6]"

Next to educational attainment, academic ability is the important determiner of income for those competing for high-level jobs, while socioeconomic background is the more important influence in the salary competition among lower-level jobs. Notice that high-A college graduates make more money than low-A college graduates, regardless of the backgrounds of their parents. These data are in agreement with those reported by Spaeth and Greeley (1970) which led to their conclusion that, among college graduates, the ability of the student had roughly four times more to do with the prestige of his job seven years after college graduation than did the socioeconomic standing of his parents.

Among students represented in Table 21 who quit their formal education upon high school graduation, however, the situation was just the opposite. Those from high-SES homes made higher salaries than those from low socioeconomic backgrounds, regardless of ability. In other words, it looks as though education is a very important and realistic pathway to higher economic status. Young people who do not participate in formal education beyond high school remain in the same relative socioeconomic position as their parents, whereas low-SES youth who pursue further education have more chance of advancing on the basis of ability. Students of low-socioeconomic backgrounds had a good chance in 1960 of raising their socioeconomic positions through higher education.

While salary *patterns* are similar for men and women, salary *figures* are not. Note that in terms of salary, college makes much more difference to women than to men. Salaries of women with college degrees compare favorably with those of men—at least until we reach the low-A, low-SES group. Women without education beyond high school have only about half the probability of comparable men for good salaries. Actually, college women do not fare quite as well financially as this table indicates. While they do tend to equal men in making salaries of $400 or more per month, very few of them make high salaries. For example, whereas 23 percent of the men in Group 1 made over $600 per month, only four percent of the comparable group of women did. Almost half of Group 1 women fell into the salary range of between $400 to $500 per month.

All of the observations that have been made about the data in Table 21 support the notion that higher education is an effective device for achieving upward mobility—at least as it is measured financially in the 1960 to 1965 time period when a relatively small proportion of the population were college graduates. The situation is changing rapidly, however. Theoretically, at least, true egalitarian higher education would eradicate the financial advantage of a college degree. When everyone has one, the decisions about who to hire and promote will have to be determined by other criteria. What does this mean for New Students? It may mean that while their absolute standard of living rises, their position in society *relative* to their high-A classmates will remain unchanged. The argument would go something like this:

When 80 percent of the population go to college, the 20 percent who don't will have a serious occupational handicap, while those who do will find that the possession of a degree gives them no advantage over 80 percent of their competition. As Hartnett (1971) puts it, "Young people, it seems, will have everything to lose if they don't go to college, but very little to gain if they *do* [p.E-10]." Furthermore, the data in Table 21, as well as that presented by Spaeth and Greeley (1970), show that when the factor of a college education is held constant (as in Groups 1-4 of Table 21), ability becomes the major determinent of salary. If that situation remains the same in the 1970s, it means that while many more New Students will have college educations than had them in the 1960s, their relative position in the salary hierarchy will remain unchanged—unless, of course, some lowest-third students manage to beat upper-third students at their own game. Table 5 (Chapter IV) indicates that it is unlikely that will be the case.

In other words, egalitarian higher education does not necessarily herald the dawning of an egalitarian society. As a matter of fact, it is likely to lead to a more sharply delineated meritocracy. Workers will advance according to their abilities, and both educational attainment and family SES will decline in importance—except insofar as they actually contribute to the individual's ability to perform the jobs that have high salaries attached to them.

EDUCATIONAL ATTAINMENT AND JOB SATISFACTION

Salary is only one dimension of job success, and students of the changing values of young people contend that youth of the 1970s are rejecting materialistic values in favor of experiences and careers that have greater potential for personal satisfactions.

In view of the tendency in our society to equate good jobs with high income, Table 22 is enlightening. For this question, young people five years out of high school were asked how they felt about their present type of work. Five responses were possible, varying from "very satisfied" to "very dissatisfied." Table 22 shows the percentages in each group that said they were "very satisfied" with their work.

TABLE 22

PERCENTAGE OF FULL-TIME WORKERS "VERY SATISFIED" WITH THEIR WORK FIVE YEARS AFTER HIGH SCHOOL GRADUATION

	Male	*Percentage*
1.	Bachelor's degree----------Low-A----Low SES	63
2.	Bachelor's degree----------Low-A----High SES	60
3.	Bachelor's degree----------High-A---Low SES	52
4.	Bachelor's degree----------High-A---High SES	51
5.	No postsecondary education--Low-A----High SES	49
6.	No postsecondary education--Low-A----Low SES	44
7.	No postsecondary education--High-A---Low SES	40
8.	No postsecondary education--High-A---High SES	40
	Female	
1.	Bachelor's degree----------Low-A----High SES	76
2.	Bachelor's degree----------High-A---High SES	62
3.	Bachelor's degree----------High-A---Low SES	62
4.	No postsecondary education--Low-A----High SES	61
5.	No postsecondary education--High-A---High SES	57
6.	Bachelor's degree----------Low-A----Low SES	55
7.	No postsecondary education--Low-A----Low SES	53
8.	No postsecondary education--High-A---Low SES	50

Source: Analysis of Project TALENT data.

When the measure of job success is satisfaction, it is still quite apparent that the possession of a college degree results in an occupational advantage. For men, those with college degrees derive more satisfaction from their work than those who have no formal education beyond high school. But there is an important difference between the order of groups in Tables 21 and 22. Whereas high-A college men make the highest salaries, it is the low-A college men who express the greatest satisfaction with their work. Likewise, low-A nondegree men are better satisfied than their high-A counterparts who also have no education beyond high school.

Throughout these and other studies, there is a consistent tendency for high-As to be less easily satisfied than low-As. The phenomenon is especially apparent at the present time among the highly critical campus activists who tend to be among the brightest and most articulate of young people. The apparent job satisfaction of low-As may be primarily the result of a combination of the lower job aspirations and greater tendency toward acquiescence on the part of low-As when compared with high-As.

The same two tendencies may also help to account for the higher overall expressed job satisfaction rates of women. Despite the fact that there is widespread agreement that able young women are underemployed, women on the whole say that they are better satisfied with their jobs than men do. Many young women in this age bracket may be working at low-level jobs that they regard as temporary until they marry or have children. In these cases, they may aspire to little more than pleasant working conditions, making the discrepancy between aspirations and reality comfortably small. The only group of women that is really out of logical order in Table 22 is the group of low-A, low-SES women with college degrees. This is the same group that appeared somewhat out of place in the salary data illustrated in Table 21 with regard to the rather substantial number of these women making low salaries. This group is of considerable interest because the students in it represent the advance guard of New Students; while these students were low-A and low-SES, they had received bachelor's degrees by 1965. The best guess as to the reasons for the fairly poor showing of this group

on the dimension of job success—financially and in terms of personal satisfaction—is that the groups with which they compare themelves are high-A college graduates of both sexes and low-A college men. It has been observed that while discrimination may not present great handicaps for highly able persons, it is at its worst for minority people who are average or below in ability (Cross, 1971). In the competition for jobs calling for college degrees, these women are at a clear disadvantage to men with college degrees, as well as to more able women. Viewed from another perspective, it is not especially surprising that high-SES females without college degrees (Groups 4 and 5) should express relatively high satisfaction with their jobs. It is probable that these high-SES women have the personal characteristics of their socioeconomic class that creates a demand for their services as receptionists, secretaries, and other high-status female occupations rewarding middle- and upper-class social amenities.

PERSPECTIVES ON DECISIONMAKING

One of the important sources of information that should prove useful in improving education for New Students is the perspective of their predecessors as they look back on their educational experiences. The Project TALENT staff asked young people five years out of high school to indicate which major decisions they regretted. Most of the alternatives offered were related to decisions regarding postsecondary education. Table 23 shows the percentage in each group responding that they were *not* sorry about any important decisions they had made.

It is clear that it is the aptitude standing that is the important factor in determining satisfaction with past decisions. It is only *within* the aptitude groupings that SES has influence—and then in the expected direction. That is, higher SES permits one to make better decisions, other things being equal. When satisfactions with particular decisions are examined, it is apparent that many answers are limited by what the person actually did. For example, low-A low-SES students are the most likely group to wish that they had taken additional educational training after high school to prepare

for better jobs, whereas high-A, high-SES students were most likely to wish that they had chosen different major fields in college. It is interesting that there is no variation at all among groups in the level of satisfaction with noneducation-related matters—e.g., vocational choice and age of marriage. Ten to 12 percent were unhappy about these decisions, regardless of aptitude or SES background. Women, however, were just about twice as likely as men to regret marrying at an early age, with the low-A and low-SES groups expressing the greatest regret—again probably because they were the ones to marry young.

TABLE 23

PERCENTAGE OF STUDENTS IN SELECTED APTITUDE/SES SUBGROUPS SATISFIED WITH IMPORTANT DECISIONS MADE

	Males	*Females*
High-A---------High SES	69	67
High-A---------Low SES	59	63
Middle-A-------High SES	55	62
Middle-A-------Middle SES	52	61
Middle-A-------Low SES	48	59
Low-A----------High SES	48	54
Low-A----------Low SES	42	54

Source: Reanalysis of Project TALENT data

EDUCATION EVALUATED

The two most frequently cited purposes of education are to prepare the student for a vocation and to add to the general enrichment of his life. As students look back from a perspective five years beyond high school, they appear fairly well satisfied with education on both counts. Across all levels of ability and educational attainment, half of the students said that their training and education had prepared them "very well" (the top choice offered) for a full

life outside their work; 40 percent were equally enthusiastic about their education as preparation for a vocation. Surely these figures will surprise many who have been critical of education's vocational emphasis. Students themselves—from a perspective of five years out of high school—feel better prepared for participating in a full life than for a vocation that will make full use of their abilities.

Table 24 shows the percentages of students with various types of postsecondary educational experiences who could be described as very well satisfied with their education.

TABLE 24

PERCENTAGE RATING EDUCATION VERY GOOD FOR A FULL LIFE OUTSIDE OF WORK AND FOR AN OCCUPATION THAT WILL MAKE FULL USE OF ABILITIES

	Level of Postsecondary Education				
	None N=8350	*License N=4642*	*J.C. N=873*	*B.A. N=9361*	*Total N=23,226*
Full life					
Male	38	39	42	54	46
Female	46	54	53	64	54
					50
Occupation					
Male	25	31	36	44	35
Female	35	54	45	47	44
					40

Source: Special Analysis of Project TALENT data.

As the Project TALENT students see it, the more education they have, the better prepared they are for living a full life. And this feeling has implications for our national goal of universal higher education; college graduates are more likely to rate their educational background as very good preparation for life than are those who have taken no study beyond high school. The same kind of general pattern emerges for students' evaluation of their vocational preparation—with one interesting exception. Women who had received a license or certificate of some kind—business school, nursing, beauty school—were the most likely group of all to feel that their vocational education had prepared them to make full use of their abilities. Fifty-four percent rated their training very good, compared with 47 percent for the college graduates.

There is some logic to the conclusion that a curriculum established for the single purpose of training for a vocation *should* result in greater student satisfaction on this dimension. It does for the women, but not for the men. The men's rate of satisfaction with education for a vocation follows the same pattern as that for a preparation for a full and satisfying life. The more education they have, the better prepared they feel. We can only speculate about the reasons for the differences betwen men and women with regard to the popularity of specific vocational training offered by licensing curricula. Men's careers are likely to be greatly influenced by their educational *credentials*. Women's careers are not so educationally sensitive—at least not among those women receiving some form of postsecondary education. In most large offices, for example, one can find secretaries with high school diplomas, business school certificates, junior college and four-year college degrees. There are even a few with graduate degrees. One would be hard-put to find such a wide range of educational backgrounds among men in a single job category. The more education a man has, the greater his career opportunities. Certainly, the same could not be said for women in the 1960-1965 time period. It is quite likely that women with specific vocational training had jobs that made better use of their abilities than those with more general two- or four-year liberal arts backgrounds.

The lack of enthusiasm of college-educated women who were working full-time in 1965 is more evident than it first appears in the figures presented in Table 24. Women generally tend to be more positive than men on ratings, and the figures in Table 24 attest to the fact that they have generally given favorable ratings to their educations at a rate roughly ten percent higher than the men. But on the rating of the vocational preparation of trade schools, they were 23 percent higher. The difference between male and female four-year college graduates who were well-satisfied with the vocational preparation was lowest of all—a mere three percent. These figures tend to support the interpretation that college probably does not prepare women well to use their abilities in a vocation. Improvement of this situation undoubtedly lies with education,

society, employers, and women themselves. It is likely to become an important question as careers outside the home assume an increasingly important aspect of women's lives.

CONCLUSIONS

The years of the 1960s were good years in which to observe the impact of education upon the lives of young people. The data show that postsecondary education—the credentials, the experience, or both—was a considerable advantage to the individuals fortunate enough to participate in it. Increasing amounts of education are associated with higher salaries, greater job satisfaction, fewer regrets about the major decisions in life, and greater feelings of confidence in achieving a full and satisfying life.

Despite these strong arguments for universal higher education, however, there are reasons for questioning the assumption that a straight-line extrapolation of the data leads inevitably to the conclusion that more education for more people will result in a better society and happier citizens. In the first place, the relative economic value of a college degree will decrease when everyone has one. Secondly, the evidence indicates that among college graduates today, those with higher *academic* ability are likely to make more money, be better satisfied with their decisions, and lead a more satisfying life than those of lower academic ability. There is little likelihood that New Students will beat traditional students at their own game—i.e., that relative ability standings will change—and hence there is little reason to think that the academic meritocracy will topple when everyone goes to college. Thirdly, there is evidence that morale is based not upon absolute standards but upon *relative* positions. Research on the morale of soldiers in World War II (Stouffer, et al., 1949) showed that everyone was much happier when the promotions included only 30 percent of a group instead of 60 percent. At 30 percent, those who made it thought it an honor, while the 70 percent who didn't could see that most people were like themselves. But with a 60 percent promotion rate, those who made it thought it a minor recognition because so many others

made it, while those who were not promoted could not take refuge in numbers. Fourthly, Ivar Berg (1970) has presented convincing evidence that a growing number of workers are already overeducated for their jobs, and his conclusion is borne out by the relative dissatisfaction of college-educated women shown in the data we have presented.

This pessimistic note is appended—not at all to disparage attempts to provide more education for more people—but rather to call attention to the dubious validity of the straight-line assumptions that some of us are making. More of the same is not enough. The development of individual talent should be the goal of education. The use of talent should be a goal of a healthy society. Education needs to take a careful look at individual differences and at new methods for fulfilling individual potential. The world of work needs to depart from dependence on credentials and to provide a more appropriate match beween worker characteristics and job requirements.

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10

New education for new students

Researchers have been criticized for presenting data in neat tables and then leaving practitioners to develop the information into useful educational applications. Researchers obviously have enjoyed such a division of labor, since it permits the luxury of scientific objectivity and detachment. But there is growing awareness in the community of educators that many expensive research projects result in descriptions that are never translated into tangible suggestions that can be subjected to trial and discussion. This chapter attempts to build a partial bridge between research and practice by drawing some generalized conclusions about the implications of the research findings presented in this book. The suggestions which follow have not been proved or tested by research. Rather, they are implied or informed by the research. My immersion, for more than a year, in the data provided by New Students has led me to some convictions in certain areas, even as the experiences of teachers and counselors working with New Students lead them to some perceptions and knowledge about these students. The gradual improvement of education for New Students will result when there is a blending and enrichment of perceptions from a variety of sources.

This chapter should not be read as a dogmatic statement of a single pathway to a better tomorrow. It offers no panacea. The problems are far too complex for simple solutions. I have had

to select for discussion certain things that seem to me urgent or closely related to my data. Other people viewing the data presented in the foregoing chapters may be led to other conclusions or to ideas for improvements in areas not covered in this chapter. I sincerely hope that is the case.

New Students—those in the lowest third academically—are telling us in a variety of ways that traditional education must be redesigned for the egalitarian era. They drop out of our traditional schools; they quit listening to lectures; they fail to put forth their best efforts; they score low on conventional tests designed to reflect the heart of the traditional academic curriculum; they get low marks for their school performances; their interests, leisure-time activities, and hobbies are nonacademic; they fail to develop self-confidence; and they tell us they are nervous and tense in class. They are caught in the impossible bind of wanting to be successful but knowing that success requires them to display the style and values that traditional education will certify.

In moving from the meritocratic era in education to the era of egalitarianism, we have not faced up to the fact that equality of educational opportunity requires more than guarantees of equal access to postsecondary education. Access to education that is inappropriate for the development of individual talents may represent nothing more than prolonged captivity in an environment that offers little more than an opportunity to repeat the damaging experiences with school failure that New Students know so well. John Gardner (1961) has described the situation forthrightly:

> In the case of the youngster who is not very talented academically, forced continuance of education may simply prolong a situation in which he is doomed to failure. Many a youngster of low ability has been kept on pointlessly in a school which taught him no vocation, exposed him to continuous failure and then sent him out into the world with a record which convinced employers that he must forever afterward be limited to unskilled or semi-skilled work. This is not a sensible way to conserve human resources [p.80].

Neither is it a sensible way to develop individual talents. In a society as complex as ours we need to encourage diversity, and yet we seem unable to move away from our unproductive preoccupation with wanting all children to learn the same things at the same rate. We are in the grip of a "deficiency" conception of New Students. From nursery school to college, we give more attention to correcting the weaknesses of New Students than to developing their strengths. It is easy to cite examples. The purpose of the television show *Sesame Street* is to prepare young children to adapt more easily to the type of education that we happen to offer. At the college level, the number-one goal of community college remedial programs is to prepare students for "regular college work" (Appendix C). We ask little more of education than that it prepare young people for the next level of education (see Chapter VII). When graduates of one level perform well at the next, we count ourselves successful.

John Holt (1971) has criticized the highly acclaimed *Sesame Street*, not for its accomplishment but for its goal—for asking, "How can we get children ready to learn what the schools are going to teach them?" Holt writes:

> The operating assumption of the program is probably something like this: Poor kids do badly in school because they have a "learning deficit." Schools, and school people, all assume that when kids come to the first grade they will know certain things, be used to thinking and talking in a certain way, and be able to respond to certain kinds of questions and demands. Rich kids on the whole know all this; poor kids on the whole do not. Therefore, if we can just make sure that the poor kids know what the rich kids know by the time they get to school, they will do just as well there as the rich kids. So goes the argument. I don't believe it. Poor kids and rich kids are more alike when they come to school than is commonly believed, and the difference is not the main reason poor kids do badly when they get there. In most ways, schools are rigged against the poor; curing "learning deficits" by Head Start, Sesame Street, or any other means, is not going to change that [p.72].

By the time students reach 17 and 18 years of age, their patterns of learning and behaving are much more firmly established than those of four- and five-year-olds, and compensatory programs in community colleges are not going to make very many New Students over into traditional students. Why then do we try so hard to reach this goal that is probably both unattainable and undesirable? Perhaps the answer lies in the observation that although we have not been able to demonstrate that performance in the traditional discipline-bound curriculum is related to adult success (Warren, 1971), the credentials of traditional colleges are important to occupational opportunity (Chapter IX). Understandably, New Students want the key that will unlock such future opportunities. But will the certification via the degree bring equal opportunity to New Students? Probably not. There is growing evidence to indicate that the possession of the college degree, as such, is declining in importance. As the degree becomes increasingly common, it becomes less useful as a selective device for employers, and it is probably safe to predict that the possession of college credentials will not provide the relative occupational advantage in the future that it has in the past (again, see Chapter IX). Employers who have used college credentials as a screening device will not be able to use them in the same way when increasing proportions of the population possess college degrees. Whether employers will require still higher educational credentials (either higher degrees or higher grades) or whether they will find criteria more relevant to job performance is unknown. It is predictable that the college dropout will have an increasingly difficult time getting a good job. If colleges provide education that fails to meet the needs of New Students, they will still be the ones to make the poorer grades and to drop out of college. In all likelihood, students who have been in the bottom third in conventional elementary and high schools will simply move up to become the bottom third in college, unless new ways are found to recognize and develop the diversity of talent that exists in the rapidly expanding pool of candidates for postsecondary education.

The message is clear that New Students are the losers if we concentrate only on access programs which merely assure the

entrance of New Students into traditional programs of education. Why can't we, just for once, make new educational programs to fit New Students instead of handing down the old education of traditional students? Perhaps the old education is not as worn out as some traditional students maintain, but like secondhand clothing it is ill-fitting for most New Students.

It is obvious from all the research presented in this book that New Students are not the same shape as traditional students. There is little, if any, chance that more than a very few students will be able to diet or gain weight or develop muscle in some spots and lose it in others to fit the educational exercise suits of traditional students. A few tucks and alterations in traditional education, plus a demanding exercise program for New Students, is very unlikely to make New Students look like traditional students or to fool employers and the general society into thinking that they are traditional students.

New Students as a group differ from the group of young people for whom traditional education was designed. This is not to deny the existence of areas of overlap between the two groups. Some New Students look like traditional students on some dimensions, and vice versa. The proposals which are set forth later in this chapter may be as advantageous for some so-called traditional students as they are for the particular group of low academic achievers that are the special concern of this book.

Let me present a recap of some of the major differences between groups of New Students and traditional students: New Students, as they are described in this book, are those who score in the lowest third on tests of academic ability. Specifically, the reader should be reminded that New Student status should not be equated with low SES or minority ethnicity. Admittedly, the overlap between New Students and the socioeconomically disadvantaged is large, but neither SES nor ethnicity, as such, have been used in the measurement that has formed the basis for the research classification and description. It is my contention that children who are constantly in the bottom third of the class throughout their formative years present a particular challenge to educators at all levels.

Chapters VII and VIII show that New Students are positively attracted to careers and that they are oriented to learning things that are tangible and useful. They tend not to value the academic model of higher education that is prized by faculty, preferring instead a vocational model that will teach them what they need to know to make a good living. Chapter VI shows that New Students consistently pick the nonacademic activities and interests and competencies from among the lists that we present to them. New Students prefer watching television programs to reading; they prefer working with tools to working with numbers; they feel more competent in using a sewing machine than in reciting long passages from memory. Chapter V shows large and consistent differences between the personality characteristics of New Students and traditional students. New Students prefer to learn what others have said rather than to engage in intellectual questioning. They don't enjoy intellectual puzzles or the complicated manipulation of ideas and abstractions. New Students possess a more pragmatic, less questioning, more authoritarian system of values than traditional students.

Perhaps upon reading such characterizations of New Students, many sincere social reformers will immediately begin to offer excuses as to why New Students don't look like traditional students. Their explanations likely will involve the assumption that if New Students were to have the educational advantages of traditional students, they would also acquire the "advantage" of thinking and behaving like traditional students. That may be true, but it seems a bit arrogant. And perhaps this brand of arrogance is taught in academe. Kurt Vonnegut, Jr. (1969) observes:

> I think about my education sometimes. I went to the University of Chicago for a while after the Second World War. I was a student in the Department of Anthropology. At that time they were teaching that there was absolutely no difference between anybody. They may be teaching that still [p.7].

John Gardner (1961) has asked: Can we be equal and excellent too? We might paraphrase the question and ask: Can we be *different* and excellent too? Some people sincerely believe we

cannot. The pressure on selective universities to practice open admissions and "special admissions" springs from the fundamental assumption that the education offered by universities is *better* than that offered by state colleges and community colleges. While I agree with the motives that want the best possible education for disadvantaged students, I question the means. I suggest that in the long run it is no more desirable for universities to launch special admissions programs for New Students (as defined by low-A) than it is for junior colleges to press their faculties for PhDs and research publications. The time is past when a single type of institution can hope to serve the needs of the diverse population now seeking higher education. The notion that universities provide the best in the way of education for New Students is not only a perpetuation of an elitist philosophy in an egalitarian era, it is also probably wrong. Stanley (1971) sums up the arguments against the special recruitment of students who are quite underqualified academically:

> It seems likely that trying to compete far above their comfortable level would confine to the easier courses and curricula most students who are quite underqualified academically, thereby limiting their choice. Also, though such students may pass most of their courses with C's and D's, one wonders what they will be learning relative to what they might learn in another college where their relative level of abilities is average or better. In addition, the negative concept of themselves which they may develop as low men on the academic totem pole must be considered. Perhaps they should be encouraged to attend colleges more geared to their level of academic competence. Not many colleges in the United States are highly selective: at least 2000 others of all sorts can accommodate most levels of developed ability and achievement [p.644].

Some New Students are facing a special problem right now. Minority youth, especially, are likely to be offered attractive financial enticements for special admissions programs at prestige institutions and no financial aid at all at community and state colleges. If they hope to attend college, these students may literally be forced into universities. Sowell (1970) is especially critical of what he cal' the "short-term expediency motives" of selective white

institutions that pass over well-qualified intellectually oriented blacks in their search for black students with poor academic records whom they believe to be "authentic ghetto types." He writes that the admission of "unprepared black students who are in over their heads academically" and the accompanying tendency of "white faculty members to fudge their grades out of guilt, compassion, or a desire to avoid trouble" is "galling to [him] as a black man, and . . . should be disturbing to everyone." The long-term effect of such considerations, Sowell maintains, will be to harm the intellectually oriented black student by using a "double standard which makes his degree look cheap in the market and his grades suspect to those concerned with academic standards. Worst of all, he cannot even have the full confidence within himself that he really earned them [p.49]."

I suggest that the proper role of the selective universities is not to search out "authentic ghetto types" but, rather, to conduct an all-out search for academically oriented minority students wherever they may be. Increasing numbers of well-qualified minority youth will be graduating from community colleges. These students will need no special attention from the university aside from the assurance that sufficient financial aid will be available to carry them as far as their interest and ability take them Another source of able minority candidates for higher education has not even been explored. Most minority adults "completed" their educations before the national concern for correcting social injustice. Academically able adults now working in industry or for the government should be encouraged to enter the universities with sufficient financial aid to support their families while they prepare themselves for new careers.

Surely quality education consists, not in offering the same thing to all people in a token gesture toward equality, but in maximizing the match between the talents of the individual and the teaching resources of the institution. Educational quality is not unidimensional. Colleges can be *different* and excellent, too. If New Students are different and not simply less capable academicians than traditional students, then I believe that education for New Students *must* be different in order to be excellent.

On the eve of the egalitarian era, a proposal calling for *different* educational experiences for New Students is easily misunderstood. To some it raises the spectre of "separate but equal," and their concern is real and cannot be easily shrugged off. What are our *alternatives*? If everyone is to be offered the *same* type of education, then we must be prepared for the fact that some will do better at it than others. The prestige education of today was designed for, and is perpetuated by, academically oriented faculty and students. It plays to the strengths of traditional students and to the weaknesses of New Students. To claim that equality of *access* leads to equality of educational opportunity to learn is to oversimplify the problem.

If, on the other hand, we are to encourage different kinds of educational experiences for New Students, then we must be absolutely certain that these new approaches to education are first-rate and that they do, in fact, lead to the fullest possible development of the potential of New Students. The only way I know to do this is to purposefully and deliberately reverse our present priorities in funding. Because it *does* cost more per capita to educate a university student than one in a community college is not to say that it *should*. Education for New Students is expensive, and I believe that it should receive top funding priority if we are to make certain that "different" becomes equated with "best" until there is no longer any danger that it will be equated with "least." Only by offering all people the opportunity to excel in different ways will we ever achieve respect and dignity for all.

A PROPOSAL: POSTSECONDARY EDUCATION TO DEVELOP INDIVIDUAL TALENTS

Almost everyone agrees that there is an urgent need for educational reform. As yet, however, would-be reformers have failed to marshal a critical mass of people who know what direction the reformation should take. The arguments take place along two major dimensions that deal with the questions of *what* we shall teach and *how* we shall teach it. The question of *who* we shall teach in postsecondary programs has been answered, and the nation is

moving, albeit awkwardly, to implement egalitarianism in the 1970s (see Chapter I).

Most of the modifications in higher education that have been made—or even suggested—to accommodate the egalitarian era are concerned with the structures and forms of college programs rather than the content. Major energies have been directed toward getting New Students into college and keeping them there. Open admissions, special recruitment of disadvantaged students, and financial aid programs are practices that are in widespread use throughout the country to attract New Students to college. Remedial courses, counseling, and pass-fail grading are common methods designed to keep New Students in college (Appendix C). Since getting New Students into—and, hopefully, through—college, has been the almost single-minded goal, it is not surprising that virtually all evaluation of our achievements has been concerned with quoting statistics or increased rates of access and retention. There seems to be general agreement that retention (although not necessarily performance) is directly related to the amount of special effort and attention given to New Students. "Total push" programs combining counseling, remediation, and financial aid, while not universally successful, are at least more effective than remediation alone. Only recently have a few scattered voices questioned whether recruitment and retention are really the goals. I think they are not. The goal of educators is to educate. We have, however, sold out to the false goal of certification, and in our eagerness to get degrees in the hands of New Students we are afraid to ask ourselves whether we are *educating* them. We have been told for so long that the quality of education makes little or no difference in the outcome (Coleman, 1966; Astin, 1968) that we have succumbed to fatalistic acceptance of the notion that the credential will do as much for the New Student as the education. There are cheaper and more honest ways to certify.

Let us look first at what certification has meant in the past and what it is likely to mean in the future. In the past, it has meant that the student has had enough persistence and motivation to sit through 128 credit hours of instruction at some

kind of institution. Although everyone was well aware of the fact that most entering freshmen at highly selective institutions had already accomplished more academically than most graduates of some other four-year institutions, that fact has never really interfered with the public conception that a college graduate is a college graduate. Looming on the horizon now, however, are quite a number of trends that portend changes in the value and process of certification. We have already discussed the uselessness for selective purposes, of a certificate that a majority possess.

There is also evidence that performance in the traditional academic curriculum is not very closely related to job performance or to personal happiness or to contributions to society when these criteria bear little relationship to the predictors. And finally, there is new interest in certifying levels of accomplishment—e.g., behavioral objectives or the external degree—instead of the pathways of learning—e.g., credit hours or residence requirements. If then, the question concerns the educational accomplishments of New Students rather than their certification, it is high time to go beyond our preoccupation with access programs and move rapidly into the more complex problems of designing new educational experiences for New Students.

The fundamental premise upon which this proposal for new education for New Students is based is that excellent education involves the basic goal of helping each individual to achieve a sense of competence and self-worth through accomplishment. No one needs to be good at all things, but everyone has the right to be good at something. We have not granted that right *in the schools* to New Students in the past. Education has the responsibility to help each student to accomplish some worthwhile endeavor at a high level of proficiency. The concern of the new education is with the *quality* of learning and performance, not with the specific nature of the subject matter.

A major source of difficulty with the present approach to learning in the typical classroom is that in specifying *what* is to be learned, we must permit individual variation in *how well* it is learned. Everyone must read *Silas Marner*, we say, but we

recognize that some will do it more competently than others. For New Students, compromises have been made throughout their school years in the *quality* of the learning instead of in the *subject* of the learning. When this happens, some people are always poor performers, and it is no wonder that New Students think of themselves as below-average people and that employers complain of sloppy workmanship. I propose that we reverse the present trends to certify that all students were exposed to the same curriculum, certifying instead that students are high performers in quite disparate areas of accomplishment. This reversal in the emphasis of the educational task is not only more humane, it is also more realistic. Once we get out of school, we choose the areas in which we will display our competencies. Only in school do we require children to display—more or less publicly—their weaknesses. Human dignity demands the right to excel. Indeed, a healthy society is built upon the premise that all citizens will contribute their best talents. The *social* necessity of emphasizing *quality* of performance and de-emphasizing *area* of performance has been eloquently expressed by John Gardner (1961):

> An excellent plumber is infinitely more admirable than an incompetent philosopher. The society which scorns excellence in plumbing because plumbing is a humble activity and tolerates shoddiness in philosophy because it is an exalted activity will have neither good plumbing nor good philosophy. Neither its pipes nor its theories will hold water [p.86].

If excellence is to be the goal, then, what are the areas in which New Students show potential strength and how can these be matched to the needs of society so that we are developing full individual and societal potential? The world's work can be roughly catalogued under three major headings (Fine & Heinz, 1958). To put it as directly as possible: We need people to work with people; we need people to work with things; and we need people to work with ideas. I propose that we aim for an ultimate goal in which each citizen attains excellence in one sphere and at least minimal competence in the other two.

It is of considerable significance that the most urgent societal needs of the present are those in which New Students show

particular interest and ability. It is increasingly evident that progress in the foreseeable future will be measured by our effectiveness in dealing with human problems and technical problems—people and things. In an advanced society, there will always be a need to push back the frontiers of knowledge by educating and utilizing the talents of people with special gifts in dealing with ideas. There will certainly be a market for traditional students, but we may not need to increase the *proportion* of traditionally trained students. Already there are ominous predictions about the oversupply of traditionally educated young workers. How unfortunate it will be if, in our misguided haste to bestow credentialed equality upon all people, we encourage New Students to enter the ranks of the unemployed by educating them for the glutted academic labor markets when so many New Students show particular strengths and interests in working in the emerging specialties dealing with human problems and those involved with keeping the machinery of the technological age in running condition.

I have proposed that each student should be helped to develop excellence in one of three spheres of excellence and that he be offered the opportunity to develop at least minimum competence in the other two. This may mean that the potentially excellent mechanic needs tutoring in English, but it also means that the future excellent college professor may need tutoring in the fundamentals of machine repair. Each one is handicapped in the modern world without minimum competence in the other's sphere of excellence.

There is considerable educational merit in promoting the concept of buddy tutoring—e.g., if you tutor me in medieval history, I'll tutor you in auto repair. It is the observation of many working with peer tutoring programs that the tutors seem to learn as much, if not more, than the persons tutored. Buddy tutoring, then, would have the double advantage of developing the sphere of excellence of the tutor while developing the sphere of competence of the person tutored.

As we contemplate the movement into an egalitarian age, it is intriguing to think about the increased perceptions that might

be gained by the academically successful youth from the upper middle class, for example, as he copes with the intricacies of machine repair. In the first place, he discovers that he lacks the vocabulary to know one machine part from another. Furthermore, he may find that while he is trying to use *his* developed skill in reading the repair manual, the instructor is moving too fast in a field that doesn't depend on verbalization. To add to his difficulties, he finds that his parents are totally unable to help him because that kind of learning is not in their background and the materials for learning are not easily available in the home. In other words, a student who has always been successful in school finds himself "educationally disadvantaged," and his symptoms are those that have appeared throughout this book. It may be that such exposure to a field in which he is not expected to be an expert—just competent—would do more than anything else to improve the image of vocational education. But it may also become as essential for all of us to have at least a rudimentary knowledge of the machine age in which we live as it is for all of us to be able to read and to communicate with people.

Consistent with the concept of developing excellence in one of the three spheres is an emphasis upon the evaluation of performance. Contrary to the present trend to abolish or de-emphasize evaluation, I propose that *in the sphere of excellence*, we renew our efforts to find better ways of testing and grading. The reasons for de-emphasizing evaluation—especially normative testing and grading—arose from analyses of the damaging effects of failure such as that discussed in Chapter IV. But the present proposal doesn't need to protect against failure, since our goal is to provide enough range so that everyone can succeed—not without effort, however. I believe that the practice of grading has more disadvantages than advantages in elementary school. And I believe that there is more to be lost than gained by an emphasis on grades in the spheres of competence. Pass-fail grading seems highly appropriate in the two spheres of competence. But there are, I believe, good reasons for developing and using a great variety of evaluative techniques in the sphere of excellence. In the first place, the very concept of excellence and the certification of levels of

achievement depend upon good evaluation. Secondly, it may be very disappointing if, just as the individual is offered an opportunity to be really good at something, we permit the high achievement to go unrecognized; as we have seen, New Students are likely to place particular value on grades and other external measures of evaluation. And thirdly, the student needs to be able to assess his own progress. Evaluations might take the form of performance tests, special projects, oral interviews, comprehensive examinations, etc. In addition, they might come from a variety of sources—from supervisors of a work-study experience, from the success of a particular project in the community, or from teachers.

Different methods of instruction are expected to be differentially effective, depending upon the sphere of study. Lectures and paper-and-pencil tests may well be effective ways of preparing students to work with ideas—although there is now considerable questioning of this venerable assumption. Group work, shop work, and experience in industry and the community may be the best techniques for teaching excellence in the *people* and *things* spheres. Such learning experiences should be given full college credit. They are educational in the best meaning of the term, as long as the emphasis is on learning to perform better or to know more or to deepen appreciation and understanding of the sphere of excellence and one's own place in it.

REMEDIAL EDUCATION REVISITED

Although I have proposed that education should de-emphasize its concern for weakness and move toward the development of strength, it is apparent that past educational experiences of New Students have resulted in learning handicaps (Chapter IV). The handicaps take two forms—failure to develop competency in the basic tools of modern living, such as communications skills and mathematics, and development of attitudinal blockages to the learning process itself. Of the two, the latter is much more serious.

The first business of educational programs for New Students should be to provide a reorientation to learning itself. Once

the student has learned how to learn, he is then free to pursue learning in his sphere of interest and talent. The student who knows how to tackle the job of learning new things may choose to apply his skill to traditional tasks of education or he may apply it to nontraditional studies.

Both the theory and the research presented in this book lead to the conclusion that New Students approach learning tasks in a different manner from that used by their more successful peers. Holt (1970) reached the same conclusion through observation. He wrote:

> Until recently it had not occurred to me that poor students thought differently about their work than good students; I assumed they thought the same way, only less skillfully. Now it begins to look as if the expectation and fear of failure, if strong enough, may lead children to act and think in a special way, to adopt strategies different from those of more confident children [p.48].

Acceptance of the fear-of-failure hypothesis as a major cause of learning difficulties advanced in Chapter IV, has a number of implications for teaching New Students. Teaching youth who have learned to fear failure in school instead of to seek achievement calls for different instructional approaches from those used in traditional education. According to the theory, achievement-motivated persons are most likely to approach new learning tasks of intermediate difficulty where the chances of success are about 50-50. Thus they are ready to tackle the task that is just a little ahead of their present skills. This approach describes what we ordinarily think of as efficient learning—moving to progressively higher levels of accomplishment in small increments. For the failure-threatened individual, the task of intermediate difficulty is most likely to be avoided in favor of nonthreatening tasks of assured success or of no probability of accomplishment. From a learning standpoint, there is nothing to be gained from following either of these tendencies. To do something you already know how to do is not learning. Neither is trying something that you can't possibly do. The problem, then, is how to move the failure-threatened individual into the learning range of behaviors—i.e., into approaching tasks that are just

a little beyond his capacity, so that he has to stretch or grow to attain them. "A man's reach should exceed his grasp, or what's a Heaven for?" Learning involves risk. Upon approaching a new learning situation, we really don't know whether we will be able to do it or not. People who have been successful in the past in similar situations are prone to have confidence; those who have failed in the past would just as soon avoid the risk of failing again.

The lesson that New Students have learned in school is that giving the wrong answer is painful—unless you can convince yourself that it doesn't matter. How, then, can we convince students that there will be no pain in trying or that they can deal with the pain of being wrong?

A few community colleges (only three percent—see Appendix C) have experimented with "guaranteed-success" programs. Although this term is a misnomer, the concept is sound. It involves starting the student where he wants to start—with something he knows he can do. The method hinges on good diagnosis and on careful management of the learning progress. Basically, the student is assigned tasks one or two levels below his tested ability and is then gradually moved to more difficult assignments. The student's tendency, according to the theory, will be to persevere at the easy tasks. This kind of "guaranteed success" is not success in the long run. The rewarding feeling of achievement comes not from doing something that you know you can do but from doing something that you thought you might not be able to do.

The experience of accomplishment always involves risk. When we speak of achievement-motivated personalities approaching a task at the 50-50 level of probability of success, we mean that there is as much risk of failure as there is chance of success in the beginning. To change a failure-threatened student into an achievement-oriented learner involves a fundamental change of attitude. It means that the learner must become eager to test himself, instead of becoming motivated to find ways of avoiding the test of personal competency. It means that the student must become curious about himself and what he can do, instead of being afraid

to find out. Most importantly, it means that the challenge to the learner is to improve upon his own past record—to seek out the task that is just a little more difficult than what he has already accomplished. In this definition of school learning, comparison with fellow students becomes irrelevant as the student seeks the development of his own competencies and the skills of assessing his own progress.

The goal of reorienting the New Student to learning is to change attitudes, but the student must also be given ample practice in learning. Instructors in reorientation courses have a special need for understanding the learning process, but their task is more complicated. They need to feel as well as to know the learning problems of New Students. Their first task is to develop in the student a curiosity about his own capacities and a willingness to take risks with his ego to find out. First and foremost, the counselor or tutor must believe that the student can perform the task. There are two basic tip-offs to the student that the teacher lacks confidence in him. One is to quit trying to teach him. Teachers, too, can have a fear-of-failure syndrome. If they believe that all efforts to teach New Students will fail, then although they may go through the motions, they have really quit trying—just as the students have quit trying in the face of impending failure. This problem is most likely to occur among teachers who are *assigned* to remedial classes. Fortunately this practice is becoming less common, and almost half of the community colleges now restrict teaching in developmental programs to volunteers expressing interest (Appendix C).

But another problem plagues some sincere and dedicated volunteers. Some such teachers are motivated largely by sympathy for disadvantaged youth and by social concern for past injustices. They want to see the student get the "goodies" (credits, degrees, job opportunities) that have been denied him in the past, but in their kindness they deny him the educational experiences involved in earning them. Subconsciously, perhaps, they want to make him a present of these "goodies." The problem may be especially difficult for whites working with black students. Trent (1970) writes:

> Unfortunately, when predominantly white institutions or white individuals do begin to assist the black community or individual they tend to over-assist. This act of benevolence often becomes repulsively condescending in the eyes of the student or degrading to his ability [p.6].

Those who over-assist New Students are reflecting the same basic lack of confidence in their learning capacities as are those who have quit trying to teach them. They may be more dangerous in the long run because they deny the student the opportunity to take the real risks that learning involves. The reorientation to learning comes from the student's knowledge that, *through his own effort*, he has accomplished a difficult task. It cannot come from telling him he is doing fine—when he isn't or when he's learning tasks at a level far below his capacity. Although research generally shows the efficacy of praise, Holt (1970) has raised some questions about its excessive use even with quite young children:

> Do children really need so much praise? When a child after a long struggle finally does the cube puzzle, does he need to be told that he has done well? Doesn't he know, without being told, that he has accomplished something [p.69]?

Although the role of constant evaluation and feedback in learning is hard to overemphasize, students know when they have done their best. The teacher who accepts poor performance (basically because he or she does not think the student can do better—or thinks that because of past injustices the student should not have to do better) is doing a grave disservice to New Students. In the final analysis, the teacher who cares must have enough teaching skill and enough confidence in the student to create the environment and situations that require the student's best efforts. A learning environment must be created in which failure is not inevitable, but where it is always possible and is acceptable to both student and teacher. We cannot guarantee success, but we can establish the conditions under which the student may experience success as a result of his own efforts.

In the implementation of the philosophy of the reorientation-to-learning program, it would be ideal if each student

could design a learning task of his own choosing, but realistically it is desirable to develop a number of tasks very carefully and let the student choose which tasks he will undertake. Teachers from the three spheres of excellence should develop learning projects for use in reorientation-to-learning classes. In most cases, the learning models can do double duty by serving both the remedial and reorientation—the cognitive and affective—functions that are necessary to overcome the learning handicaps of New Students.

It is especially important that the learning projects be models of good learning. Ralph Tyler (1970) describes seven conditions required for effective learning that may be useful as a checklist in developing models. Summarized, they are as follows:

- The student must have a clear idea of what he is trying to learn. He needs concrete examples of persons doing what he is expected to learn in order to guide his own efforts.

- The motivation of the student must be strong enough to impel him to an initial attempt and then to continue the practice.

- Students must be helped to focus their efforts on the significant features of the behavior they are seeking to master.

- There must be ample opportunity for practice in appropriate situations that are meaningful to the student.

- The student must be provided with feedback on his performance. Practice without specific information about specific inadequacies simply perpetuates the inadequacies.

- There must be a reward system which will help students derive satisfaction from improving their performance. Measurable improvement in the significant features of behavior is one of the most satisfactory rewards.

- The sequential organization of learning experiences is essential for learning complex and difficult things.

If these requirements for effective learning sound like "behavioral objectives" and "criterion-referenced evaluation," it is because they are the fundamental principles upon which some of the new behavioral objectivists are building. The present behavioral bandwagon has its articulate critics (Silberman, 1970, for one) and justifiably so, but lessons consisting of discrete tasks with measurable outcomes that are immediately available to inform the student of his learning progress are ideal for use in reorienting New Students to learning. Ideally, students could complete several learning projects, involving different kinds of skills, thus giving them some experience on which to base later learning preferences. Some may realize that they prefer working with things or people whereas others may discover that they have talent for traditional academic studies. The choice of the type of project should be left to the student, but the standards of performance are nonnegotiable. They must be the best the student is capable of.

Students in reorientation-to-learning classes should learn something about learning processes. They should know, for example, that learning is not 100 percent success. When that point has been reached, we may say that something *has been* learned, but learning is in progress only when there are things we can't do or don't know. In learning skills, for example, when a task is performed correctly seven out of ten times, the next goal might be the achievement of success eight out of ten times, or learning might be directed toward moving to a more difficult level and achieving success only six out of ten times. In the first instance the student is learning the task; in the second he is learning how to learn—how to advance to increasingly difficult levels involving greater risks of failure. Both processes are essential to the full development of talent.

The better the student understands the process of learning, the better he can monitor his own progress. The monitoring function should gradually move from teacher to student, and ultimately the student should accept responsibility for his learning progress. When the student can direct his own learning, he has a lifelong tool that can open new doors of opportunity. If these new doors should open into the pursuit of discipline-oriented higher education, that is fine;

but if they open to other opportunities for future education and development, that is equally fine.

As a matter of fact, the most rapidly growing segment of American education is the "Educational Periphery," a term that has been used by Moses (1970) to describe systematic educational activities which go on outside the educational core of elementary, secondary, and higher education. Included in the periphery are: programs sponsored by employers–business, government, and industry–to upgrade the capability of employees; proprietary schools, usually run for profit and including beauty schools, computer training, refrigeration schools, etc.; antipoverty programs, such as the Job Corps and Manpower Training and Development Centers; correspondence courses; educational television which is beginning to perform educational functions for all ages–from *Sesame Street* to *Sunrise Semester*; and adult education programs ranging from academically oriented evening courses to neighborhood and social-action groups concerned with "affective" learning. In 1970, the numbers of people pursuing structured educational activities in the educational core stood at about 64 million, whereas the number in the periphery was estimated at 60 million. By 1976, the number in the core will be approximately 67 million, compared to 82 million in the rapidly growing periphery (Moses, 1970).

Education in America *has* moved out of the confines of the regular school system, and these new options will open new opportunities to New Students of all kinds. In fact, they will probably create entirely new categories of New Students to higher education. With little or no attention from the educational establishment, millions of citizens are creating their own lifelong-learning models of education. Hopefully we may look forward to the day when education is not something that should be completed before age 25. In the final analysis, enabling people to learn however, whenever, and whatever they have a need or desire to learn is the aim of all education.

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APPENDIX A:

Characteristics of the four major data sources employed

PROJECT TALENT

The Sample

Project TALENT data represents a probability sample of approximately five percent of the public, private, and parochial high schools in the country. The total TALENT sample included 400,000 students in grades 9-12 in 1,353 schools. Stratification variables included geographical area, size of senior class, retention ratio, and school category (public, parochial, or private). Extensive technical corrections have been applied to the data with the intent of making the sample as nationally representative as possible. The data used in this book is an approximate ten percent sample of the 62,602 twelfth graders tested in the spring of 1960. The 1961 and 1965 follow-up data have been weighted for nonrespondent bias. Project TALENT comes closer than any other data bank used herein to approximating a nationally representative sample.

Instruments

The Project TALENT two-day battery consisted of instruments in the following broad categories:

a. Information tests of knowledge acquired in and out of school (38 scores).

b. Language and mathematics aptitude and ability tests (13 scores).

c. Tests of specific aptitudes, including creativity, mechanical and abstract reasoning, and visualization (15 scores).

d. Tests of specific clerical, computational, and perceptual abilities (4 scores).

e. Student Information Blank regarding family background, school experiences, plans, etc. (394 items).

f. Interest inventory (17 scales).

g. Student activities inventory (10 temperament scales).

Criterion Instrument for Defining New Students

The General Academic Aptitude Composite (Code No. C-002) was used to divide the TALENT sample into thirds. Twelfth-grade norms gave the following cutting scores: top third, 596 and above; middle third, 488 to 595; lowest third, 487 and below.

The General Academic Aptitude Composite "includes tests of verbal and numerical facility; verbal, quantitative, and nonverbal-nonquantitative reasoning; and specific information in English and mathematics. It is a highly reliable measure and is likely to predict overall scholastic achievement rather closely [Flanagan, et al., 1964]."

The Project TALENT sample of lowest-third students appears similar to the other three on the socioeconomic indices of father's education and father's occupation (See Appendix B). Girls score slightly lower on the General Academic Aptitude Composite than do boys, hence girls are somewhat overrepresented in the Project TALENT New Student group.

Additional Information

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Flanagan, J. C., & Associates. *The American high school student.* Pittsburgh: Project TALENT Office, 1964.

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ETS GROWTH STUDY

The Sample

The ETS Growth Study sample was designed to represent the range of United States school systems with respect to geographical region, size, and proportion of graduates who attend college. It is not, however, a probability sample, and over half of the subjects resided in one of three large cities: Akron and Erie, Ohio and Oakland, California. The urban bias may account for the large proportion of students continuing their education beyond high school relative to the other samples used.

The basic Growth Study sample consisted of 8,891 students in 17 cities first tested in 1961 as seventh graders. Only those students for whom data were available for the 1961, 1963, 1965, and 1967 testings were included in the present study. This represents 3,220 students who remained in the study consistently from seventh grade through nine months after high school graduation. The determination of New Students was made on the eleventh-grade group in the fall of 1965.

Instruments

The Growth Study 15-hour battery consists of the following:

a. Sequential Tests of Educational Progress (STEP)—includes six tests in the four major academic areas: communications (reading, writing, and listening), social studies, science, and mathematics.

b. School and College Ability Tests (SCAT)—70-minute academic aptitude test with three scores: Verbal, Quantitative, and Total.

c. Background and Experience Questionnaire (BEQ)—177-item questionnaire about home environment, recreation, reading, hobbies, attitudes, and goals.

d. Tests of General Information (TGI)—40-minute, 120-item test of general factual knowledge about aspects of medicine, science, arts, humanities, entertainment, and public affairs that are available to the informed public.

e. Senior Questionnaire—brief eight-item questionnaire given to seniors in an attempt to get some ideas of the students' immediate, post high school plans.

f. Other cognitive measures used in the Growth Study (but not included in the present analysis) are the PSAT and the College Board English Composition and American History Achievement Tests.

Criterion Instrument for Defining New Students

The total score of the SCAT was used to divide the Growth Study sample into thirds. It is a reliable (.95) test of academic aptitude, correlating about .55 with school marks in grade eleven. Cutting scores were based on eleventh-grade norms and were as follows: lowest third, 260 and below; middle third, 261 to 270; upper third, 271 and above. Females are overrepresented in the low-scoring group, primarily because of low quantitative scores. Appendix B shows the Growth Study New Students similar to other New Students on socioeconomic variables, but educational aspirations appear somewhat higher than other groups.

Additional Information

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SCOPE: (SCHOOL TO COLLEGE: OPPORTUNITIES FOR POSTSECONDARY EDUCATION)

The Sample

For the 1966 SCOPE twelfth-grade sample used in these analyses, secondary schools were used as the sampling units. The goal of the SCOPE research staff was to obtain as representative a sample as possible of high school students within four states showing diversity in college attendance rates. The states and the number of high school seniors participating in the 1966 survey were: California, 7,567; Illinois, 8,600 Massachusetts, 6,335; and North Carolina, 11,377. Because of the difficulty in obtaining the cooperation of metropolitan school districts, urban students are somewhat underrepresented in the SCOPE sample. It may be this bias which is responsible in part for the rather low college attendance rates of the SCOPE sample when compared with other national data. The sample used in the analyses throughout this book is the four-state composite consisting of some 33,000 students.

Instruments

The SCOPE instrument battery consisted of the following measures used for students who were in the twelfth grade in 1966:

a. Academic Ability Test (AAT)—50-minute traditional test of academic ability. It correlates very highly with the School and College Ability Test (SCAT) and gives verbal, mathematical, and total scores.

b. Occupational Preferences–122-item list of occupations for which the student indicated extent of liking.

c. Activity Preferences–83-item test of activities for which the student indicated the extent of liking.

d. Student Attitudes–55-item inventory of statements with scales labeled Autonomy, Thinking Introversion, Theoretical Orientation, Deferment of Satisfaction, Active-Passive, and Intellectual Predisposition.

e. Student Questionnaire–192-item questionnaire inquiring about home and school experiences as well as future aspirations and plans.

f. College Questionnaire–143-item questionnaire given one year after high school graduation (1967 for this cohort) to students attending a postsecondary institution of education. Items concern reaction to college, interests, and aspirations.

g. Parent's Questionnaire–12-item questionnaire mailed to parents of SCOPE participants inquiring mostly about parental financial support for postsecondary education.

Criterion Instrument for Defining New Students

The Cooperative Academic Test is a special form of the School and College Ability Tests (SCAT). It is a 45-minute test of general academic ability consisting of verbal and mathematical sections. The test has a reliability of .90 and a correlation of .56 with rank in graduating class for the norms sample (Cooperative Academic Ability Test, 1964).

The total score was used to divide the SCOPE sample into thirds. Cutting scores were based on the SCOPE four-state composite norms and were as follows: lowest third, 42 and below; middle third, 43 to 58; top third, 59 and above. Females were overrepresented

in the lowest third because of lower female test scores. Mean scores on the AAT were 53 for boys and 49 for girls with standard deviations of 20 and 18 respectively.

Additional Information

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COMPARATIVE GUIDANCE AND PLACEMENT PROGRAM (CGP)

The Sample

The Comparative Guidance and Placement Program is a new battery of tests and questionnaires offered by the College Entrance Examination Board to two-year colleges. The sample used herein consisted of 23,719 students to whom the CGP battery was administered by 45 two-year colleges voluntarily subscribing to the CGP program. The 14,939 men and 8,780 women in the sample took the tests between July and October, 1969; some colleges

administered the battery to students who were planning to enter in the fall, others to enrolled students. The CGP sample differs in two major ways from the other three samples used herein. It consists of junior college students (or planned entrants), and it is not designed to represent anything except the users of the CGP tests.

The sample, however, looks reasonably representative of two-year college students. Table A gives some information about the characteristics of the colleges participating in the summer and fall, 1969 administration of the CGP.

TABLE A
CHARACTERISTICS OF CGP COLLEGES–1969

Test N	*Region*	*Number of Colleges*	*Control*		*Size*	
			Public	*Private*	*Under 1000*	*Over 1000*
2,986	Midwest	8	6	2	2	6
11,504	East	17	13	4	9	8
4,841	West	6	5	1	2	4
4,754	South	14	12	2	8	6
24,085*	Total	45	36	9	21	24

* Because of missing data on some student records, the number in the sample used herein is 23,719.

Instruments

The 1969 CGP battery is basically a guidance program designed to help two-year colleges in the guidance and placement of individuals. It consists of a set of instruments focused on experiences, interests, and special abilities. The tests may be described under the three categories:

a. Biographical inventory–65-item questionnaire about plans, backgrounds, and attitudes. Special sets of items give scores indicating Financial Need, Academic Motivation, and Vocational Motivation.

b. Comparative Interest Index–students are asked to indicate the extent of their interest in each of the 176 activities which are related to 11 academic and vocational fields such as biology, business, home economics, and engineering technology.

c. Tests of special abilities—battery of six tests of basic skills and special abilities gives measures in traditional skills such as reading, written communications, and fundamental mathematics, and more nontraditional skills such as short-term memory and nonverbal reasoning.

Criterion Instrument for Defining New Students

The Sentences Test was used to divide the CGP sample into thirds. It is a 20-minute, 40-item test designed to reveal mastery of grammatical rules and usage. Students are asked to identify the faulty component among a number of underlined elements in a sentence. It was chosen because past research revealed it to be the best predictor of junior college grades. Median validities across curriculums and institutions range from .23 to .61. (See ETS, 1968 and 1969.) The reliability is reported as .82. While the Sentences Test has the advantage of being unspeeded, it has the disadvantage of favoring females strongly. The mean for males is 49 and for females 54. The bias had the effect of making a heavily male sample (63 percent of the total CGP sample were male) even more heavily male (71 percent) when the lowest third was considered. Most of the CGP data are reported separately for males and females except in situations where differences between the sexes are minor.

Additional Information

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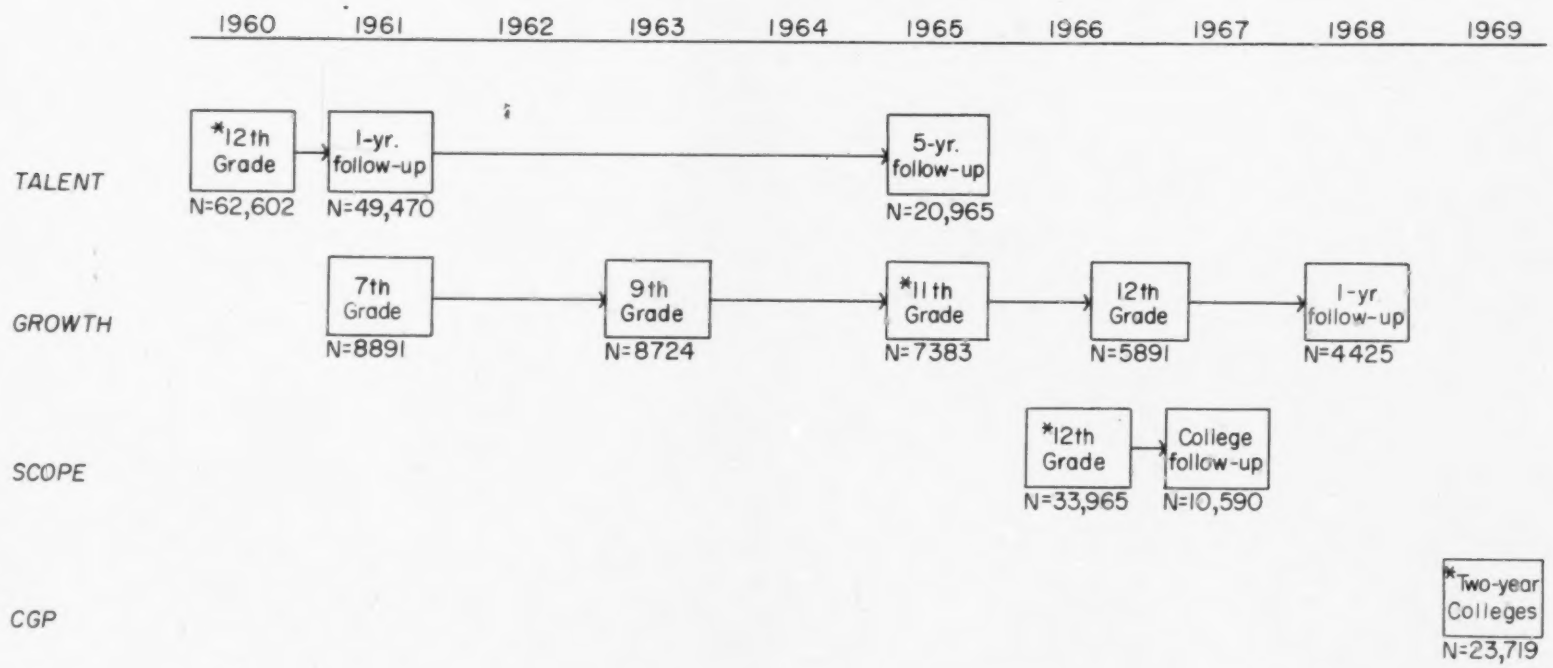
FIGURE A

TIME DESIGN FOR FOUR MAJOR DATA BANKS

Year of Data Collections



*Criterion group for determination of New Students

APPENDIX B:

Key characteristics of new students

Some information about the nature of the four major sources of data used throughout this book may be gained by a comparison of data on selected student characteristics. The figures reported in Table B represent the percentages of New Students (lowest third on the measure of academic aptitude) possessing the given characteristics. Categories have been adjusted, insofar as possible, to facilitate comparison. Differences are due to many things—date of the study, nature of the sample, the phrasing of the item, and the nature of the instrument used to categorize the total sample into thirds.

TABLE B
COMPARATIVE DATA FOR SELECTED CHARACTERISTICS OF NEW STUDENTS FROM THE FOUR MAJOR DATA SOURCES

	PROJECT TALENT	SCOPE	GROWTH STUDY	CGP
Date	12th grade, 1960 Follow-up, 1961, 1965	12th grade, 1966 Follow-up, 1967	11th grade, 1965 Brief 12th grade O, 1966 Follow-up, 1967	13th grade, 1969
Male Sex Lowest 1/3 Total Sample	 45 47	 43 49	 39 44	 71 63
Race	Not available	Not available in 1966-67	Not available	American Indian 2 Caucasian 56 Mexican/Spanish 4 Negro/Black 23 Oriental 7 No response 8
Father's Education	Grade School 37 High School 34 Vocation/Some College 6 College Graduate 3 More than BA 3 No response and Don't know 18 Summary: 71% of fathers high school graduates or less	Grade School 26 High School 39 Vocation/Some College 9 College Graduate 4 More than BA 2 No response and Don't know 20 Summary: 65% of fathers high school graduates or less	Grade School 11 High School 57 Vocation/Some College 10 College Graduate 8 More than BA 2 Don't know 12 Summary: 68% of fathers high school graduates or less	Grade School 20 High School 39 Vocation/Some College 12 College Graduate 5 More than BA 3 No response 20 Summary: 59% of fathers high school graduates or less
Father's Occupation	Professional and Executive 12 Low Executive/ Managerial 4 Sales 2 Clerical/Office 19 Skilled 10 Service 2 Semiskilled 10 Unskilled 27 Farmer 11 Don't know 2 Summary: 60% Blue Collar	Professional and Executive 8 Low Executive/ Managerial 12 Sales 5 Office 3 Skilled 36 Service 8 Unskilled 16 No response and Don't know 12 Summary: 60% Blue Collar	Professional and Executive 12 Low Executive/ Managerial 15 Sales 4 Skilled 16 Semiskilled 28 Service, Clerical, Unskilled 18 Other 7 Summary: 62% Blue Collar	Professional and Executive 8 Low Executive/ Managerial 11 Sales and office 7 Skilled 18 Service 6 Semiskilled 17 Unskilled 11 No response 22 Summary: 52% Blue Collar but high *No response* rate
Academic Performance	High School grades: All As 3 Mostly As 8 " As and Bs 24 " Bs and Cs 43 " Cs and Ds 21 " Ds and below 2 Summary: 35% had above B average	Expected Teacher rating: Excellent 2 Good 20 Average 60 Poor, but passing 13 Not passing 1 No response 4 Summary: 22% above average	Senior rank in class (12th grade): Top 10% 1 75-90 Percentile 5 50-75 " 10 25-50 " 29 Below 25th " 55 Summary: 16% in upper half	High School grades Mostly As 0 Half As, half Bs 3 Mostly Bs 10 Half Bs, half Cs 34 Mostly Cs 30 Half Cs, half Ds 13 Mostly Ds 1 Mostly Ds and below 0 No response 6 Summary: 13% had above B average
Educational Plans	Likely to attend: 4-year 15 Junior College 9 Not going 48 Don't know 16 No response 13 Summary: 24% plan 2-year or 4-year college	Plans after high school: 4-year college 10 Junior College 11 Vocational School 18 Military 7 Full-time job 25 Job & school 7 Marriage 3 Other, none & Don't know 16 Summary: 21% plan 2-year or 4-year college	Plans after high school (12th grade Q): 4-year 20 2-year 20 Other training 17 Military 7 Full-time job 29 Housewife 3 Other 5 Summary: 40% plan 2-year or 4-year college	Plan to complete: 4 years or more 31 2-year transfer 11 2-year occupational 24 1-year program 7 No special plans 15 Other 6 No response 6 Summary: 66% plan completion of 2- or 4-year program

APPENDIX C:

The questionaire on developmental services

The Questionnaire was mailed in March 1970 to a 20-percent random sample of two-year colleges listed in the 1969 American Association of Junior Colleges' *Directory*. Responses were received from 141 colleges for a 78-percent return.

Tabulations are presented in percentages except for items 4 and 5 which called for rankings. Rank orders for these items were determined by adding the numbers placing the alternative first or second in importance and rank-ordering their totals.

QUESTIONNAIRE ON REMEDIAL OR DEVELOPMENTAL SERVICES
with tabulated responses*

1. The provisions colleges are making for poorly prepared students range all the way from hiring an additional counselor to developing a full program of recruitment, courses, counseling, etc. Does your college have any special provisions for students who do not meet the traditional academic requirements for college work?

(80%) Yes.

(20%) No. If your answer is "No," you need not complete the questionnaire.

2. Please place an " x " in the box by *any* of the following that describe special services offered at your college *this year.*

(64%) Efforts to recruit students who would not ordinarily seek a college education.

(76%) Financial aids designed especially for disadvantaged students.

(61%) Special counseling programs.

(92%) Remedial or developmental courses to upgrade verbal or other academic skills.

(20%) A total program of recruitment, counseling, courses, etc., with a director.

Other: _____
_____

3. If you have a special program for educationally-disadvantaged students, what is its title?

4. What do you see as the major obstacle to learning for low-achieving students? Please rank, using a "1" for the most important, "2" for the next most important, etc.

(7) Low intelligence.

(2) Poor home background.

(3) Poor elementary and secondary schooling.

*Responses appear as percentages or rankings.

(1) Lack of effort; has quit trying.

(4) Fear of failure.

(5) More interested in non-academic matters such as car, sports, job, etc.

(6) The necessity of a job prevents adequate time and energy for study.

Other:_____

_____

5. Please rank the following broad goals of your college's efforts to educate underprepared students in order of importance:

(1) To prepare students for regular college work.

(2) To provide skills for job and family responsibilities.

(5) To provide for the needs of minority group students.

(4) To assist in developing non-academic talents of the individual.

(3) To change attitudes toward self and school.

Other:_____

_____

6. Do you offer any kinds of remedial or compensatory courses?

(95%) Yes.

(5%) No. If your answer is "No," skip to question 13.

7. Approximately what proportion of the full-time student body is enrolled in remedial courses?

(40%) Less than 10 percent.

(39%) Between 10 and 25 percent.

(16%) Between 25 and 50 percent.

(3%) More than 50 percent.

8. What proportion of those taking remedial courses are members of racial minorities?

(64%) Less than 25 percent.

(19%) Between 25 and 50 percent.

(10%) Between 50 and 75 percent.

(5%) More than 75 percent.

9. Are remedial courses required for certain students?

(79%) Yes.

(19%) No.

10. How is eligibility for remedial courses determined? (Answer all that apply.)

(75%) Test scores (Below_____ on_____).
what percentile? what test?

(50%) High school grades (Below C+, C, C-, D+, D, D-).
(please circle)

(54%) Interview.

Other:_____

11. Do remedial courses carry

(25%) No credit?

(29%) Non-degree credit?

(32%) Degree credit?

12. Approximately what proportion of students enrolled in remedial courses later enter regular college courses at your or other institutions?

(11%) Less than 10 percent.

(11%) Between 10 and 25 percent.

(12%) Between 25 and 50 percent.

(45%) More than half.

(18%) Don't know.

SPECIAL FEATURES OF DEVELOPMENTAL EFFORTS

Listed below are some techniques that are frequently used in helping poorly prepared students. Please make an "x" in the box by those activities that are in use *this year* at your college.

13. Recruitment of students.

(70%) Visits to high schools in disadvantaged areas.

(60%) Specific requests to high school counselors.

(58%) Work with community agencies and leaders.

(52%) Use of students to help in recruiting.

(24%) Use of a special recruitment program—e.g., Talent Search, NSSFNS, Upward Bound.

(14%) Other recruitment techniques:_____

_____

14. Admissions

(81%) Open admissions.

(4%) Attempt to attract a certain number from racial minorities—i.e., use of a quota.

(19%) Relaxation of test scores or high school grades for underprepared students.

Other: _____

_____

15. Financial aid.

(63%) Available to needy students regardless of academic standing—e.g., may retain grant while on probation.

(71%) "Need" used as a major criterion of eligibility for funds.

(59%) Use of a federally funded program designed for disadvantaged students—i.e., EOP.

(38%) College has some funds of its own for poorly prepared students.

Other:_____

_____

16. Counseling services.

(22%) Separate counseling office for underprepared students.

(33%) Use of group interaction or group counseling.

(36%) Program of teacher counselors.

(17%) Use of students as counselors.

(40%) Diagnostic testing.

(12%) Other:_____

_____

17. Academic adjustments.

(58%) Remedial students carry a lighter course load.

(27%) Non-punitive grading—e.g., pass-no pass.

(58%) Remedial classes smaller than regular classes.

Other:_____

_____

18. Instructional methods.

(22%) Team teaching.

(45%) Emphasis on audio visual aids.

(36%) Skills centers.

(36%) Tutoring by fellow students.

(44%) Programmed instruction.

(3%) "Guaranteed-success" programs.

(7%) Practicum accompanies academic—e.g., New Careers.

(5%) Gaming or psychodrama.

(21%) Use of materials drawn from black and other ethnic cultures.

(31%) "Pacing" methods—i.e., emphasis on achievement regardless of time taken.

(7%) Other:_____

19. Physical facilities.

(21%) Separate office for the program.

(4%) Separate student lounge available.

Other:_____

20. Special help with studies.

(48%) Pre-college or summer programs.

(39%) Additional intensified study for underprepared students while enrolled in regular classes.

(8%) Other:_____

21. Faculty.

(47%) Instruction of remedial courses restricted to teachers expressing interest.

(50%) Most remedial teachers have some special training for work with under-prepared students.

(9%) Group sensitivity sessions for faculty.

(37%) All expenses paid for attendance at off-campus conferences, workshops, etc.

(16%) On campus in-service training for remedial instructors.

(13%) Emphasis on use of racial minorities for faculty.

Other:_____

22. Evaluation.

(55%) Measurement of changes in test scores.

(36%) Measurement of changes in student attitudes.

(50%) Follow-up of students on the job or in college.

(30%) Formal collection of faculty and student reactions to program.

(4%) Other:_____

CRDHE Selections:

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Junior College into Four-Year College: Rationale and Result in Two Institions, by Richard H. Gott

The Faculty in University Governance, by T. R. McConnell and Kenneth P. Mortimer

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END